Sequence Caulobact

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AB117722 Rhodococc AL939109 Exreptomy AP005222 Correbac Continuation (37 o AP005047 Exreptomy Continuation (25 o AC111200 Homo sapi AR201230 Sequence AL646067 Ralstonia AL646067 Ralstonia AK572600 Rhodopseu AK572600 Rhodopseu AF512431 Saccharot
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BD164882 Novel pol
AX122765 Sequence
AX064023 Sequence
AX064029 Sequence
AX064237 Sequence
AX244019 Sequence
AX244019 Sequence
AX248324 Corynebac
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                                                                                                                                                                                                                                                                                                                                                                                                            Unclassified.

1 (bases 1 to 1749)

Delcayre,A.

Compounds for treatment of infectious and immune system disorders and methods for their use
Patent: US 6358734-A 58 19-MAR-2002;
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AE005703 Caulobact
AX697977 Sequence
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100.0%; Pred. No. 1.1e-211;
ive 0; Mismatches 0;
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AP005047
AP006618_24
AC111200
AF429315
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AX122765
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Best Local Similarity 100.
Matches 1655; Conservative
   5.4 3712

5.2 27000

4.8 110000

4.7 128655

4.7 1186752

4.7 186752

4.5 13050

4.5 213050

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AR39920 Sequence
                                                                        ; Search time 7009 Seconds (without alignments) 11441.487 Million cell updates/sec
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Compugen Ltd.
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AP006618 17
AE017227
AR201229
AR389420
AR389265
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                GenCore version
Copyright (c) 1993 - 2005
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                                                        nucleic search, using sw model
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AR201240
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Maximum Match 100%
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Gaps

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No.

1415 ACGTCGCCGGGTTGGCAGAACCAGTCATCATCGACCGAGCCTTGCGCAACATCGGGC 1474	RESULT 2 AR201276 LOCUS LOCUS DEFINITION Sequence 56 from patent US 6358734. ACCESSION AR201276 VERSION AR201276.1 GI:20252164 KEYWORDS SOURCE Unknown. ORGANISM Unknown.	NCE ORS E NAL ES OUTCE	IGIN Query Match Best Local Similari Matches 1329; Cons		121 195CCMACGCTGCCGCATCGGCGGGGGGGGGGGGGGGGGGGGG	241 CAGAACGGGCCGGTCTGGGGGTCCTCGGTGCCCAGTGCCGTCGGCGACGTCGGTCG	Oy 301 TCGGCGTGATGCGGCCGTAGGCGTCCTCGGTCCACAAGGTCACGTCCTCGTCCCG 360
335 CAGAACGGGCCGGTTGAGGTCCTCGGTGCCAGTGCCGTCGG 394 301 TCGGCGCTGGTGATGCGGCGTTGAGGTCCTCGGTGCCGTCGACGCGCGCG	635 CGCGGCGCAGCAGCAGCAGTGTTCAGATGGCCAGTCGCCGTGCATGATCCCGGGGTTCGGCGT 694 601 CGTCGGGCCTGCGCGAGTCCAGCCAGTCGCCAGCATGCACGAGGAACCCCGGGGGC 695 CGTCGGGCGAGTCCAGCCAGTCGGCGAGCACCGACGGGAACGACTCGG 754 661 GCGCGGGATCTGATCAGCTCGGGGGCGCGCGCCCAGCACGCGCGGCACGGCACCGCACCTCGG 754 661 GCGCGGGATCTGATCAGCTCGGGGGCCCCAGCAACGCCAGCGTGGGAAGCACC 720 755 GCGCGGGATCTGATCAGCTCGGGGGTGCCCAGCAACGCTGGGAAGCACC 814 757 GAGACCGGGATCTGATCAGCTCGGGAGCCCGGCAGCACCCCAGCGGGAAGCACC 814	### ##################################	901 ATGTGCTGTCAGCAGCATCCGAACACCGACCACGCGAGCAGTCGCAATCTGTC 960	1021 CCGCTGCGGCTCTCCATGGCCGGTTCGTTCAGTCGCTCGTCGGTGGCTGTTCTGC 1080	1175 GAACGGCCCGCCCCCCCTCTTTTTTTTTTTTTTTTTTTT	GCCAGATACACCCAGGCGGTGGCCGGCATGTCCAGATCGTGGCCAGCGCGCGC	1261 TGGAGATCGGATCTATCGCGCGGCTGTGCGGGAAGGACGCGTAGCGGCGTTGCACT 1320

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CCCGCCGACCACCACCACCACCACCACCACCACCACCACC	SULT 5 201238 CUS AR	Qy 615 GAGTCCAGCCAGTCGGCGAGCACATGCACCGACGGAACGACTCGGGCGC 665	555	495	435	ATCAGTTCGGCCCTGGTCGCCAG 	Query Match Query Match Query Match Best Local Similarity 100.0%; Pred. No. 1.5e-29; Matches 291; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	rce	NISM	ACCESSION AR201235 VERSION AR201235.1 GI:20252123 KEYWORDS SOUNCE Unknown.	AR201235	Oy 1653 TGA 1655 Db 1747 TGA 1749	1593 ATCC 1 1687 ATCC		1567 AACTCTTGAGGCTAAGGCCCAATTGGGAAGATACTTGGACCTTCCCATCAATAGAGAAGATACTTGGGACTTAGAGAAAATAGGGAAAGATACTTGGAACTTCCCATCAATAGAGGAAAGATACTTGGAACTTCCCATCAATAGAGGAAAGATACTTGGAACTTCCCATCAATAGAGGAAAGAATAGAGAAGATACTTGGAACTTCCCATCAATAGAGGAAAGATACTTGGAACTATCAATAGAGAAAAAAGAAAAAAAA	1507	Db 1447 GGTGATGCGGCCGTAGGCGTCCTCGGTCCACAACGTCAGCACCGTGCCCGGGCGAT 1506
25	1414 1413 1387 GCCGGTCTGCGGGTTGAGGTCCTCGGTGCCCAGTCGTCGACGTCGTCGGCGCT 1446 1414 1413	AACATCGGGCCGTATCTGCCAGCTGAGGTTCCGGCTCTCGTCG	GCGTTGCACTACGTCGCCCCGGTTGGCGAGAAGCAGGACTACATCGACCGAGCCTTGCGC 				TGCGAACGGGCCCCCCCCCGTCGTCCGATACGGGATCTATCACGCAGGCCGCCGCCCCCCGCGCGCG				rcagc 		GCGCGGGATTCTGATCAGCTCGGGAGCCGGGTGCCCAGCAGCACCCAGCGTGGGAAGCACC GCGCGGGATCTGATCGGCAGGCATCAGAACAGTAAGCGGTGTTCCGGTT	CGTCGGGCCTGCGCGAGTCCAGCCAGTCGGCGAGCATGCACCGACGAGAACGACTCGG	GCGT GCGT	CCCCGACGGTGCACATCTCCCAGTCGATGAACGCCGCGAGCTCGGGGACGT	TCGA 43

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TTGAGAGCTAAGGCCAATTGGAAGATACTTGGACCTTCCCATCAATAGAGGAAAAGCAT 1538
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Delcayre, A.
Compounds for treatment of infectious and immune system disorders and methods for their use
Patent: US 6358734-A 21 19-MAR-2002;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                      Compounds for treatment of infectious and immune system disorders and methods for their use Patent: US 6358734-A 13 19-MAR-2002;
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Sequence 21 from patent US 6358734.
AR201241

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Sequence 13 from patent US 6358734.
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Unclassified.
1 (bases 1 to 210)
Delcayre,A.
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Best Local Similarity 100.
Matches 210; Conservative
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Delcayre,A.
Compounds for treatment of infectious and immune system disorders and methods for their use
Patent: US 6358734-A 14 19-MAR-2002;
Location/Qualifiers
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Compounds for treatment of infectious and immune system disorders and methods for their use
Patent: US 6358734-A 18 19-MAR-2002;
Location/Qualifiers
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                                                                                                                                                                                                                                                     Length 261;
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Sequence 14 from patent US 6358734.
AR201234
AR201234.1 GI:20252122
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                     GI:20252126
                                                               Unknown.
Unclassified.
1 (bases 1 to 261)
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Best Local Similarity 100.0
Matches 226; Conservative
                                                                                                                                                                                                                                                                      Local Similarity
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Declayre, A.
Compounds A.
Compounds for treatment of infectious and immune system disorders and methods for their use
and methods for their use
Patent: US 6358734-A 17 19-MAR-2002;
Location/Qualifiers
1. 138
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                                                                                                              GATGTGCCCGCGCAGCAGCGCCCAGCCGTGCACCCCGCGGGACCGGGCCCCCGCGGACCGC 791
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                                                                                  1 GATCAGCTCGGGGAGCCGGGTGCCCAGCAACGCCGTGGGAAGCACCGAGACCGGGCGC 60
                                                                                                                                                                     792 GTCGGAGTCGACCCCGGCCGCCGCGCGCGCGTGGTCAGCATCAGCCACGGGAT 848
                                                                                                                                                                                    1 ATCACGCAGGTAGGCCGTCCAGCCGTACTCTTCGCCCCCAGAACAGCGGTGCCGTCGCCGC
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llarity 100.0%; Pred. No. 2.7e-10;
Conservative 0; Mismatches 0;
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10.7%; Score 177; DB 6; I
Best Local Similarity 100.0%; Pred. No. 2.6e-14;
Matches 177; Conservative 0; Mismatches 0;
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/mol_type="unassigned DNA"
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Sequence 16 from patent US 6358734.
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Regards 1, Iseda, H., Ishikawa, J., Hanamoto, A., Takahashi, C.,
Shinose, M., Takahashi, Y., Horikawa, H., Nakazawa, H., Osonoe, T.,
Shinose, M., Takahashi, Y., Horikawa, H., Nakazawa, H., Osonoe, T.,
Subnida, M., Director-General of Biotechnology Center, Shiba, T.,
Sakaki, Y. and Hattori, M.

Direct Submission

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Shiba,T., Sakaki,Y., Hattori,M. and Omura,S.
Complete genome sequence and comparative analysis of the industrial
microorganism Streptomyces avermitilis
Nat. Biotechnol. 21 (5), 526-531 (2003)
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*I Kitasato Institute for Life Sciences, Kitasato University

*2 National Institute of Infectious Diseases

*3 The Kitasato Institute
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21477403
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Local Similarity 100.0%; Pred. No. 4.3e-09;
tes 138; Conservative 0; Mismatches 0;
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Streptomyces avermitilis MA-4680
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vvvayilitgvpephpetvsqstvfldadgeyigrrgpvdrqdvelsevprhyqdavia
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alikhtravaspelrilaggirgyrkpytvaktyrggrisytrappfravrfygb
pahledtargtraspsplklaggirgsyskryvaktyrggrisytvaryasvp
pahledtargtraspsplklaggirgsyskrypkppped"
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AELMLAKDGEHWSTPAGSGVSLPEESRGAGGPAVTLRLEEVHDRFLLSGTYRGTGQAA
RAEVETPSGTTAGTLLTLAGSPGWSVWYAIAPEPKSAGKRLFATVRVTWYDARGAVLA
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/product="hypothetical protein"
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/db_xref="G1:2968077"
/translation="MFRRTAARYSRSAAAAVIAVAALVAAANAGFARAATPPAHEASH
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DARYAPKTAASTAGAKVKVSTSLSGFYKTKSAMGHTYSYFHKSKDPVVNTTWTAYPNR
KQKLTVQAYYNGAWHETASEYFALSASGKSSVTLEGTPSTGIRFRLRSAYINNSSGDN
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GVEEGIAMLVDFGSSQARILTPYTRMHSL"
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/protein_id="BAC72135.1"
/db_xref="GI:29608080"
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/trans1_table=11
/product="putative regulatory protein"
/protein id="BAC721331"
/db_xref="G1:29608078"
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/gene="sig38"
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/note="SAV4424"
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                                                                                                                                               VNSTTYGSWKYLIFTS"
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EDDRILGLEVGADDYVTKPPSPRELVLRVESVLRRTRPVTAPRPLHASGLALDPAARR
ATKDGEELALTIREPDLLAFPLRHPGRAFSREDLMREVWGWDFGDLSTVTVHVRRLRG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /trānslation="Midmllialffcraraccccccctrrrsltvslavvsav
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FVPGPAYPPEQPRPRTPDGPAAADVHATIAAAVRAGRHGEADALAAQWEQTAASTHGA
ASEEALHWREVRADLAMFAGDAARSCRAWLIVAGTRLAAGQAPADPAVEAAVDRAHHQ
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MVAPVKATRGKALSVSGTLTSAEALPAGATVSVTRTDMESPSGKPVGTATVAADGSYT
FGDTPPAGGKVTYTATYAGDASHSGATATGSVEVSRSTPTLTLNNDGKVYAYGSDVKF
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RPTPADGTVA LAAERSPGGVVLSVTDGCGGIPEBDLRRVFDTGWRGTHARTPPAGAGI
GLAIVRGIVEAHQGQAAVRNIPGGCRFEVTLPTARAQPQP"
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GFPWHWIRBELRLRPPGTTTLFVDLHADAETWQHLRTGPLDAGRAAALYGRVAPPPR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     translation="MPGTVLLLAASPAGKGCLVDAASVLPVLAAVAPSVLSGTDTANV
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NCIMB 12804 or NRRL 8165.~synonym: Streptomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            /product="putative two-component system sensor kinase"
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/db_xref="GI:29608074"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     similar to cell wall surface anchor family protein"
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                          *4 National Institute of Technology and Evaluation
*5 School of Science, Kitasato University
*6 Institute of Medical Science, University of Tokyo
*7 RIKEN, Genomic Sciences Center
Following url is also available.
http://avermitilis.ls.kitasato-u.ac.jp.
                                                                                                                                                                                                                                                                                                                                                   /organism="Streptomyces avermitilis MA-4680"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    KVEDDPARPRLIQTVWGVGYRFGTTPRQEAV"
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Bentley, S.D., Chater, K.F., Cerdeno-Tarraga, A.M., Challis, G.L.,
Thomson, N.R., James, K.D., Harris, D.E., Quail, M.A., Kieser, H.,
Harper, D., Bateman, Brown, S., Chandra, G., Chen, C.W., Collins, M.,
Cronin, A., Fraser, A., Brown, S., Chandra, G., Chen, C.W., Collins, M.,
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Rabbinowitsch, E., Rajandream, M.A., Rutherford, K., Rutter, S.,
Taylor, K., Saunders, D., Sharp, S., Squares, S.,
Taylor, K., Warren, T., Mietzorrek, A., Woodward, J., Barrell, B.G.,
Parkhill, J. and Hopwood, D.A.
Complete genome sequence of the model actinomycete Streptomyces
Coelicolor A3(2)
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limited similarity to many proteins of undefined function
e.g. TR:027384 (EMBL:AE000896) methyltransferase related
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       protein (196 aa) fasta scores; opt: 162, z-score: 186.2, E(): 0.0046, (28.9% identity in 152 aa overlap). Contains PS00092 N-6 Adenine-specific DNA methylases signature"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note="SCH5.07c, putative membrane protein, len: 132 aa.
Contains possible hydrophobic membrane spanning regions"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Direct Submission
Submitted (09-MAY-2002) Submitted on behalf of the Streptomyces Submitted (09-MAY-2002) Submitted on Dehalf of the Streptomyces sequencing team, Sanger Institute, Wellcome Trust Genome Campus, Hinxton, Cambridge Callo 1SA E-mail: sdb@sanger.ac.uk
On or before Oct 30, 2002 this sequence version replaced
gi:4725998, gi:4751846, gi:5019320, gi:5123864, gi:134520,
Location/Qualifiers
AL079353 AL096822 AL159178 AL355919 AL392189 AL442629 AL645882
AL939117.1 GI:24427162
                                                                                                      Streptomyces coelicolor A3(2)
Streptomyces coelicolor A3(2)
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
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                                                                                                                                                                                                                Streptomycineae; Streptomycetaceae; Streptomyces.
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/gene="SCO3544"
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Bentley, S.D.
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                                                                                                                                                 ORGANISM
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AUTHORS
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                                                                          KEYWORDS
SOURCE
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                                          VERSION
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   158702 GACCGGGAGACGCGGGAGCCGCTGGTGCCGTACAACGCGGGCGAGGCGAGGCGAACGCGCCG 158643
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                                                                                                                                                                                                                                                                                                                                                                                                                                                          CTGGCGACCGCCTGCGCGGTCGCGACGATCAACGCGATGGAAGACGAAGGCATGGTGGCC 125
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                                                                                                                                                                                                                                                                                                                                                                                   158942 Arcaccasadecriresas Ascasacerateces as a Arcacasacerates arcacasacaraces
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Streptomyces coelicolor A3(2) complete genome; segment 14/29.
AL939117 AL035636 AL049731 AL049754 AL078610 AL079308 AL079348
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                                                                                                                                                                         Score 132.4; DB 1;
Pred. No. 5.5e-09;
0; Mismatches 96;
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100.0%; Pred. No. 2.8e-08;
ive 0; Mismatches 0;
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Sequence 20 from patent US 6358734.
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/note="scuds4y"
sw.RSBV BACSU RebV, anti-sigma B factor antagonist from Bacillus subthis (109 aa) fasts accres; opt: 25.
z-score: 341.7, E8(): 9.99-12, 465.7% identity in 94 aa overlap) and SW.SP21 BACSU spoilAA, anti-sigma F factor antagonist (116 aa) fasta scores; opt: 179, z-score: 244.8, E8(): 2.5e-06, (30.2% identity in 96 aa overlap)."
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /product="putative anti-sigma factor"
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                               'note="Cleavage Bite for ABeI restriction endonuclease
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complement (5559.
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/ Gene="SCOSTA"

/ Gene="SCOSTA"

/ Incte="SCOSTA"

/ Incte
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/protein_id="CAB38483.1"
/brotein_id="CAB38483.1"
/db_xref="di:45395483.1"
/db_xref="Uniprot/TrEMBL:09X912"
/translation="MEGTNPYNKKLAAALSGGAVLVLALTGCSSSDDNEKLDSWAKDV CEGOVOPOAKKERAANAAIQKETSDNSTPABVQKTTDKAFQDMSDAYKAMGATVQKAGP PDVDDGEKKQKDAYTELNGLSASYASLKKQVBELDTWOQAKFADGLKDIATELNKLSK SGSNALKKLEGDVGQAMAKQPSCKSASVTPSAABG"
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ITKGIA I ATAVLAAAAL FGSYRDA I TTGAADVGEKLSGEGAPWILMND I SQPNNLVGL
I TAGAAVVE FEBSIAL NAVSERGAGAVYSKRRQFERR FOLIMVSEK PERGVVDI CTRD
ALRELAT FGLLAVMA PI FI GETLGGVGALGAFLAGA I GAGTLMAVFLANSGGSRONAKK
LVEDGHIGGKGSEAHAATVI GDTVGDPFKDTAGPAI NPLLKVMNLVALLI APAVIKFS
    TVRTPVSAALDLGTGSGIQALHAAAHATRVTATDVNPRALHITALIALSGAPAADLR
SGSIYERVADDETYDLIVSNPPPVISPSCARLITYSDGGMGGDDLCRSLUQGTGERLNEG
GGAIFLANWGHYGEGEWTDRLRSWVFHGCDAMIVQRSVQDVTGYAELWIADAGDHRGD
PADYQARYDAWLDEFEARKVKAVGFGWITLRRTGAADPSVVAEEWPHPVEQPLGETVR
AHPROVDYLABSHDDAALLEAHFTLSGEKVQEQVGLPGABPEHVLRQNRGWRGATRV
AHPROVDYLASGARILDAALLEAHFTLSGEKVQEQVGLPGABPEHVVLRQNRGWRRATRV
COMDLEMENT (1417. . 1437)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="SCHE.09c, possible small lipoprotein, len: 196aa, Contains PS00013 Prokaryotic membrane lipoprotein lipid attachment site and probable N-terminal signal sequence. Contains probable coiled-coil from 104 to 141 (38 residues), max score: 1.630, (probability 1.00)."
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/note="Cleavage site for Asel restriction endonuclease
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/note="PS00013 Prokaryotic membrane lipoprotein lipid
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'note="35 base inverted repeat with possible 37 base
                                                                                                                                                                                                                                                                                                                                                        /note="PS00092 N-6 Adenine-specific DNA methylases
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /note="synonym: SCH5.09c"
complement(2227..2817)
/gene="SCO3546"
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                                                                                                                                                                                                                                                                                                                                                                                                                                         complement (2227. .2817)
/gene="SCO3546"
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/transl_table=:
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5559. .5
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Pred. No. 6.7e-05;
0; Mismatches 201;
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Best Local Similarity 54.6%;
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Best Local Similarity 100.0%; Pred. No. 7.2e-06;
Matches 114; Conservative 0; Mismatches 0;
                                                                                                                                                Sequence 11 from patent US 6358734.
AR201231
AR201231.1 GI:20252119
                                                                                                                                                                                                                                                                                                                                                                                                                                           and methods for their use
Patent: US 6358734-A 11 19-MAR-2002;
Location/Qualifiers
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/organism="unknown"
/mol_type="unassigned DNA"
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ADD13562 AAH68532 ADQ91707 ADQ91695 ADS62019 AAS51420 ACA19524

AAF71905 AAF71755 AAS96078 AAF71904 AAF71917 AAF71754 AAF72011

ABD17125 ABD17094 ABD17018

ACA23916 ABX56043 AAL61170

Aca23916 Prokaryot Abx56043 M. echino Aal61170 Actinosyn

ALIGNMENTS

Run on:

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Nucleotide sequence of an 8-mer multi-epitope designated ME/D.
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Mycobacterium vaccae.
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         GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders Epitope; antigen; cytokine production; immune disorder; tuberculosis; cancer; mycobacterial infection; TH1 immune response; vaccine; ss. /product= "multi-epitope" Location/Qualifiers 1. 1749 /*tag= a (GENE-) GENESIS RES & DEV CORP LTD. 10-JUL-2000; 2000WO-NZ000121. 99US-00351348. 99US-00450072. WPI; 2001-168411/17. P-PSDB; AAB31660. and cancers. Delcayre A;

Bult No.

Claim 7; Page 68; 80pp; English

Aas53967 Klebsiell Aax53491 Human ade Aax53491 Human ade Aaf25076 Nucleotid Aad55818 Micromono

AAX53491 AAX53491 AAF25076 AAD55818

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 CACGGGATGGATCTGATCGGCAGGCATCACGAACAGTAAGCGGTGTTCCGGTTGAATCCA
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cancer; mycobacterial infection; TH1 immune response; vaccine; s8.
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The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence encodes an 8-mer multi-epitope designated ME/D
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.larity 100.0%; Pred. No. 3.3e-297;
Conservative 0; Mismatches 0;
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Matches 1655; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence encodes an 8-mer multi-epitope designated ME/A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mycobacterium immune disorders
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1749 BP; 275 A; 612 C; 581 G; 281 T; 0 U; 0 Other;
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0; Mismatches 296; Indels
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                                   "multi-epitope"
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/product= "multi-epitope"
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Matches 1244; Conservative
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Mycobacterium vaccae.
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                                                                                                                                                                  Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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                                                                                                                                                                                                                                                                                                                                 describes an immunogenic epitope of a Mycobacterium
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ive 0; Mismatches
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Best Local Similarity
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29-NOV-1999;
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                                  Delcayre A;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ATCCCATCGCGCGCGCGCGCGCGGGAAATCCACGGATCCCATCACCATCACCATCAC 1652
1387 GCCGGTCTGCGGGTTGAGGTCCTCGGTGCCCAGTGCCGTCGACGCGACGTCGTCGCGCGT 1446
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1567 AAGCTCTTGAGAGCTAAGGCCAATTGGGAAGATACTTGGACCTTCCCATCAATAGAGGAA 1626
                                                                                                                                          cegrecrececeagaracacecaegeegeegecegearerecagaregeegeege
                                                                                                                                                                                                    CGCGGCACGGTGGAGATCGGATCTATCGCGGGCTGTGCGGGAAGGACGAGGCCGTAGCG
                                                                                                                                                                                                                                       1473 AAGCTCTTGAGAGCTAAGGCCAATTGGGAAGATACTTGGACCTTCCCATCAATAGAGGAA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1627 AAGCATCGCCCTAGGGGATCCGTAGCGGCCCCGGTGTTTCGAGTGAACTTGGGCAGGGCA
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                                                                                                                                                                                                                                                                                                                GCGTTGCACTACGTCGCCCCGGTTGGCGAGAAGCAGGACTACATCGACCGAGCCTTGCGC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleotide sequence of a M. vaccae immunogenic epitope from DNA26
                                                                                                                                                                                                                                                                                                                                                                                                                                1371 AACATCGGGCCGTATCTGCCAGCTGAGGTTCCCGCTCTCGTCG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mycobacterium vaccae.
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29-NOV-1999;
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121 AACGCTGCCCGCATCGGCGAGCAGGTGCTCGGACCGGGTCTGCGCGGATCTCGCCGCCGG 180
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                                                                                                                                                                                                                                  Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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cancer; mycobacterial infection; TH1 immune response; vaccine; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Nucleotide sequence of a M. vaccae immunogenic epitope from DNA5.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 13.7%; Score 226; DB 5; Length 697; Best Local Similarity 100.0%; Pred. No. 1e-32; Matches 226; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CACCGTTCGGTCGGCGAAGTCCGCGGCCTCGGCGTCTTCTGGGCGG 231
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 697 BP; 89 A; 253 C; 253 G; 102 T; 0 U; 0 Other;
                                                                                 (GENE-) GENESIS RES & DEV CORP LTD.
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                  99US-00351348.
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                                                                                                                                                                     WPI; 2001-168411/17.
P-PSDB; AAB31649.
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             12-JUL-1999;
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                                                                                                                            Delcayre A;
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                                                                                                                            Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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15.8%; Score 261; DB 5; Length 261;
Best Local Similarity 100.0%; Pred. No. 3.4e-39;
Matches 261; Conservative 0; Mismatches 0; Indels
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/*tag= a
/note= "no termination sequence given"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 261 BP; 37 A; 94 C; 83 G; 47 T; 0 U; 0 Other;
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                                                             WPI; 2001-168411/17
                                                                                     P-PSDB; AAB31653
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                                                                                                                                                                       and cancers
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                      Delcayre A;
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RESULT 6 **AAF2508**0

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672 GATCAGCTCGGGGAGCCGGGTGCCCAGCGAAGCGGAAGCACCGAGACCGCGCGC 731
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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cancer; mycobacterial infection; TH1 immune response; vaccine; ss.
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                                                                                                                                                                                                                                                                                                                                                                                                                    0; Indels
                                                                                                                                                                                                                                                                                                                                    Sequence 177 BP; 27 A; 71 C; 66 G; 13 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                  Pred. No. 1.2e-23;
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10.7%; Score +, , , __
Best Local Similarity 100.0%; Pred. No. 1.2
Matches 177; Conservative 0; Mismatches
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                                                                                                                                Claim 4; Page 60; 80pp; English.
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WPI; 2001-168411/17.
P-PSDB; AAB31656.
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                                                                                                                                                                                                                                               The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing TH1 immune responses, and for producing vaccines. The present sequence encodes a M. vaccae epitope of the invention
                                                                                                                                  comprising immunogenic epitopes of Mycobacterium treating mycobacterial infections, immune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           1479 TTGAGAGCTAAGGCCAATTGGGAAGATACTTGGACCTTCCCATCAATAGAGGAAAAGCAT
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     (GENE-) GENESIS RES & DEV CORP LTD
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                                                                                 WPI; 2001-168411/17.
P-PSDB; AAB31648.
                                                                                                                                      Novel polypeptides vaccae, useful for and cancers.
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Matches 210; Conserv
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RESULT 8 AAF25087

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          The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence encodes a M. vaccae epitope of the invention
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                                                                                                                                                                                                                                             ATCACGCAGGTAGGCCGTCCAGCCGTACTCTTCGCCCCAGAACAGCGGTGCCGTCGCCGCCCC
                                                                                                                                                                                                                                                                                                  GCAGACCAGCGCTGCCGCCAGATACACCCCAGGCGGTGGCCGGCATGTCCAGATCGTG
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                                                                                                                                          Seguence 147 BP; 25 A; 54 C; 49 G; 19 T; 0 U; 0 Other;
                                                                                                                                                                                 Best Local Similarity 100.0%; Pred. No. 4.3
Matches 147; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                           61 GGCGAGAAGCAGGACTACATCGACCGAGCCTTGCGCAACATCGGGCCGTATCTGCCAGCT
                                                                                                                                                                                         1275 ATCGCGCGGCTGTGCGGGAAGGACGAGGCCGTAGCGGCGTTGCACTACGTCGCCCCGGTT
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                                                                                                                                Gaps
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100.0%; Pred. No. 2.6e-15;
tve 0; Mismatches 0; Indels
                                                                Length 138;
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Sequence 138 BP; 23 A; 44 C; 47 G; 24 T; 0 U; 0 Other;
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                                                            Score 138; DB 5;
Pred. No. 2e-16;
                                Match 8.3%; Score 138; up. Local Similarity 100.0%; Pred. No. 2e-7.
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8.0%; Score 132; DB
Best Local Similarity 100.0%; Pred. No. 2.6
Matches 132; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           121 GAGGTTCCCGCTCTCGTC 138
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99US-00450072
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Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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cancer; mycobacterial infection; TH1 immune response; vaccine; ss.
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                                                                                                                               Nucleotide sequence of a M. vaccae immunogenic epitope from DNA5.
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                                          AAF25075 standard; DNA; 96
                                                                                                     (first entry)
                                                                                                                                                                                                                  Mycobacterium vaccae
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29-NOV-1999;
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Best Local &
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                                                                       AAF25075;
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                                                                            The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence encodes a M. vaccae epitope of the invention
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                                                            GTCGTCGGCGCTGGTGATGCGGCCGCCGTAGGCGTCCTCGGTCCACAACGTCAGCACCGT 356
GAICCAGAACGGGCCGGICTGCGGGTTGAGGTCCTCGGTGCCCAGTGCCGTCGACGCGAC 296
                             9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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100.0%; Pred. No. 5.5e-12;
tive 0; Mismatches 0;
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99US-00450072.
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Matches 114; Conservative
                                                                                                                            GCCCGGGCGGAT 368
                                                                                                                                                         GCCCGGGCGGAT 132
                                                                                                                                                                                                                                                                                                                                                                                                                 Mycobacterium vaccae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2001-168411/17.
P-PSDB; AAB31646.
                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200104140-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-JUL-1999;
29-NOV-1999;
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                                                                                                                                                                                                                                                                                                    30-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             18-JAN-2001.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Delcayre A;
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                                                                                                                                                                                                                                                                     AAF25077;
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                                  ч
                                                                 297
                                                                                             61
                                                                                                                            357
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                                                                                                                                                                                                       RESULT 12
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1458 GITCGICAGIACCCCGAAGCTCTTGAGAGCTAAGGCCAATTGGGAAGATACTTGGACCTTC 1517
                                                      The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing TH1 immune responses, and for producing vaccines. The present sequence encodes a M. vaccae epitope of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9
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                                                                                                                                                                                                                                                                                                                                                                                                                  Score 96; DB 5; Length 96;
Pred. No. 1.2e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0; Indels
                                                                                                                                                                                                                                                                                                                                                     Sequence 96 BP; 27 A; 24 C; 25 G; 20 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CCATCAATAGAGGAAAAGCATCGCCCTAGGGGATCC 1553
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                                                                                                                                                                                                                                                                                                                                                                                                                     ch 5.8%; Score 96; DB 1 Similarity 100.0%; Pred. No. 1.2 96; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     BP.
Claim 4; Page 58; 80pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ABD00374 standard; DNA; 1245
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99US-0117747P.

Osborne M;

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(GENO-) GENOME THERAPEUTICS CORP.
           27-JAN-2000; 2000US-00489039
                                                                                                                     WPI; 2003-895346/82.
                                                                                                                                   P-PSDB; ABO66648.
                                      29-JAN-1999;
                                                                                           Breton GL,
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                                                                                                                                                                                                                                                                                                                       The invention describes a new isolated nucleic acid encoding a Klebsiella pneumoniae polypeptide. Also described are: a recombinant expression vector comprising the nucleic acid, operably linked to a transcription regulatory element; and a cell comprising the recombinant expression vector. The nucleic acid is useful for preparing a vaccine composition against Klebsiella pneumoniae. This sequence encodes a Klebsiella pneumoniae polypeptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              416
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CTGCGCGGTCGCGACGATCAACGCGATGGAAGACGAAGGCATGGTGGCCAACGCTGCCCG 136
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             196
                                                                                                                                                                                                                                                        New nucleic acid encoding a Klebsiella pneumoniae polypeptide, useful for preparing a vaccine composition against Klebsiella pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  415 GGCGATTGTCGCCACCATCGACGCGATGAAAGAGAGAGAATGTGGTTGAGAACGCGGCCTC 356
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TATCGGCAACGAGGTGCTGCGCCCCGGTCTCGAGGCGCTGGCGGAGAAGCACGCCATTAT 296
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gaps
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Klebsiella pneumoniae protein; antibacterial; Vaccine; gene; ds.
Klebsiella pneumoniae protein; antibacterial; Vaccine; gene; ds.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             Natch 5.8%; Score 95.6; DB 11; Length 1245; Local Similarity 65.4%; Pred. No. 1.4e-08; les 140; Conservative 0; Mismatches 74; Indels 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 1245 BP; 229 A; 431 C; 380 G; 205 T; 0 U; 0 Other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CGGCGAAGTCCGCGGCCTCGGCGTCTTCTGGGCG 230
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CGGCGAGGTGCGCGGTCTGTTCCAGGCG 262
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                                                                                                                                                                                                                                                                                                Disclosure; SEQ ID NO 6149; 932pp; English.
                                                                                                                                                             (GENO-) GENOME THERAPEUTICS CORP.
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                                                                                                        27-JAN-2000; 2000US-00489039
                                                                                                                                   99US-0117747P
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                                                                                                                                                                                       Osborne M;
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                        Klebsiella pneumoniae
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                                                                                                                                   29-JAN-1999;
                                                    US6610836-B1
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                                                                             26-AUG-2003
                                                                                                                                                                                       Breton GL,
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention describes a new isolated nucleic acid encoding a Klebsiella pneumoniae polypeptide. Also described are: a recombinant expression vector comprising the nucleic acid, operably linked to a transcription regulatory element; and a cell comprising the recombinant expression vector. The nucleic acid is useful for preparing a vaccine composition against Klebsiella pneumoniae. This sequence encodes a Klebsiella pneumoniae polypeptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  77 CTGCGCGGTCGCGACGATCAACGCGATGGAAGACGAAGGCATGGTGGCCAACGCTGCCCG 136
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New nucleic acid encoding a Klebsiella pneumoniae polypeptide, useful for
preparing a vaccine composition against Klebsiella pneumoniae.
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es 74;
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65.4%; Pred. No. 1.4e
tive 0; Mismatches
                                                                                                                                                                                                                                                                                                   Disclosure; SEQ ID NO 5994; 932pp; English
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Matches 140; Conservative
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6, 2005, 20:46:31 completed: October Job time : 868 secs

JS6610836-B1

26-AUG-2003

Title: Perfect score:

Sequence:

OM nucleic

Run on:

Scoring table:

Searched:

dximum DB

Database

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E. Fujiyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T.,
Totoki, Y., Watanabe, H. and Sakaki, Y.
BAC end sequences of Library RPCI-43
Unpublished

2. (Dasses 1 to 1798)
Fujiyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T.,
Totoki, Y., Watanabe, H. and Sakaki, Y.
Totoki, Y., Watanabe, H. and Sakaki, Y.
Direct Submission
U. Bubmitted (02-AUG-2001) Asso Fujiyama, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC).

1-7-22 Suchiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:chimpbes@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9110)
Clones are derived from the chimpanzee BAC library RPCI-43 This BAC end was generated during the R&D process and may have higher chance of clone tracking errors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AG171124 1108 bp DNA linear GSS 09
Pan troglodytes DNA, clone: RP43-040F09.TJ, genomic survey
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /eex="male"
|cell_type="lymphocytes"
|clone_lib="RPCI-43 Chimpanzee Male BAC Library"
CL090560
AG430101 N
AG4301124
AL066742 CCG75659
BZ569488
BZ569488
BZ569488
CL508812
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/organism="Pan troglodytes"
/mol type="genomic DNA"
/db_xref="taxon:9598"
/clone="RP43-040F09.TJ"
                                                                                                                                                                                                                                                                                                                                                                                                       ALIGNMENTS
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   CL090560
AG430101
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CG756559
AG448243
BZ56948
CL508812
CL508812
CL508812
CL470317
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BZ56938
CA975828
AG064185
AG064051
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Pan troglodytes
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: EcoRI.
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AGI71124.1 GI:16700802
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R.Site 1
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   Query Match
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JOURNAL
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AUTHORS
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JOURNAL
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AUTHORS
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(without alignments)
12665.132 Million cell updates/sec
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                                                                                                                                                                                                                                                                                                                                                      68479088
                       GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
                                                                                                                                                                                                                                                                                                                   34239544 seqs, 19032134700 residues
                                                                                                                                                                                                                                                                                                                                                        Total number of hits satisfying chosen parameters:
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CB207639
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                                                                                                                                                                                                                                                                                                                                                                  Contact: Sessions A Applied Trait Genetics Syngenta Biotechnology Inc.
3054 Cornwallis Rd., Research Triangle Park, NC 27709, USA 3054 Cornwallis Rd., Research Triangle Park, NC 27709, USA Bmail: allen.sessions@syngenta.com
ABRC Stock Number CS835878, T-DNA left border flanking sequences o Syngenta Arabidopsis Insertion Library (SAIL) lines are available through the Arabidopsis Biological Resource Center (ABRC). Sequences represent a pool of amplified genomic regions and not single contiguous sequences.
Class: TDNA tagged.
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/clone lib="Magnaporthe grisea Appressorium Stage cDNA"
/note="Vector: pBlueScript SK(+) Vector; Site 1: EcoRI;
Site 2: XhoI; The appressorium formation-specific cDNA
library was constructed from conidia germinated for 5-8 hr
on an inductive surface. The library contains over 55,000
clones with average insert size of 1.5 kbp."
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Corganism="Magnaporthe grisea"
/mol type="mRNA"
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1 (bases 1 to 1516)

Choi, W. and Dean, R.A.

Construction and sequence analysis of an appressorium stage cDNA

Construction and sequence analysis of an appressorium stage cDNA
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4.7%; Score 78; DB 4; Length 1516;
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Email: ralph dean@ncsu.edu
Seg primer: T3 primer (AATTAACCCTCACTAAAGGG)
Location/Qualifiers
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North Carolina State University
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/db_xref="taxon:57486"
/clone="MSMg01-165A22.TJ"
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**Note=_Organ: Developing Tadpole; Vector: pDNR-LIB; Site 1: Sfi; Site 2: Sfi; 5' and 3' adaptors were used in Site 1: Sfli, Site 2: Sfi; 5' and 3' adaptors were used in 5'-CACGCCATTATGCCC-3' and 3' adaptor sequence: 5'-CACGCCATTATGCCC-3' and 3' adaptor sequence: 5'-ATTCTAGAGGCCGAGGCGGAGTAG-GT(30) BN-3' (where B = A, C, Or G and N = A, C, G, Or T). Average insert size 1.6 kb (range 0.9-1.0 kb). 15/15 colonies contained inserts by PCR. This library was enriched for full-length clones and was constructed by Clontech Laboratories (Palo Alto, CA)."
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CDNA Library Preparation: CLONTECH
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DNA Sequencing by: Agencourt Bioscience Corporation
Clone distribution: NCI-CGAP clone distribution information of
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
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S Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.

Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.

Direct Submission

Direct Submission

L 1-722 Submission

1-7-22 Subhisro-chou,Taurumi-ku, Yokohama, Kanagawa 230-0045, Japan

(E-mail:hattoriogsoc.riken.jp, URL:http://hgp.gsc.riken.go.jp/,

Tel:81-45-503-9111, Fax:81-45-503-9170)

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Koyadai, Taukuba, 305-0074 Japan

phone: 81-298-36-9189, fax: 81-298-36-9199
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Totoki, Y., Watanabe, H. and Sakaki, Y.

Direct Submitssion
Submitted (02-AUG-2001) Asao Fujiyama, The Institute of Physical
and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
1-7-22 Suehiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail:chimpbesegscriken.go.jp, URL:http://hgp.gsc.riken.go.jp/,
Tel:81-45-503-9111, Fax:81-45-503-9170)
Clones are derived from the chimpanzee BAC library PTB This BAC end
was generated during the R&D process and may have higher chance of
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Totoki,Y., Watanabe,H. and Sakaki,Y.
BAC end sequences of Library PTB
Unpublished
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/clone="PTB-003A18.F"
/eex="male"
/cell_type="lymphoblast"
/cell_type="lymphoblast"
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                                                                                                                                                                                                                                                                                                         Bukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleostomi, Amphibia, Batrachia, Anura, Mesobatrachia, Pipoidea, Pipidae, Xenopodinae, Xenopos, Silurana.

1 (bases 1 to 1821)

Kremitzki, C., Carter, J., McPherson, J., Warren, W., Graves, T., Mardis, E. and Wilson, R.

Mardis, E. and Wilson, R.

Aphysical map of the xenopus tropicalis genome
Unpublished (2003)

Contact: Richard K. Wilson
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/clone="ISB1-17N15"
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Totoki,Y., Watanabe,H. and Sakaki,Y.
BAC end sequences of Library PTB
Unpublished
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Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.

Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.

Direct Submission

Direct Submission

Submitted (17-NOV-2003) Masahira Hattori, The Institute of Physical
and Chemical Research (RIKEN), Genomic Sciences Center (GSC);

1-7-22 Subhiro-chou,Teurumi-ku, Yokohama, Kanagawa 230-0045, Japan
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- Determination of this BAC-end sequence was carried out as part of collaboration with the Berkeley Drosophila Genome Project (BDGP). The BDGP is constructing a physical map of the Drosophila please see http://www.fruitfly.org The BDGP Drosophila melanogaster BAC library was prepared by Kazutoyo Googgawa and Maron Mammoser in Pieter de Jong's laboratory in the Department of Cancer BAC library is named RPCI-98 and was constructed by partial BCORI digestion of Prosophila DNA provided by the BDGP from the isogenic strain y2; cn bw sp, the same strain used for the BDGP's and how to order individual BAC clones, the entire library, or filters for hybridization from the BACPAC Resource Center can be found at http://bacpac.med.buffalo.edu/drosophila_bac.htm.
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Pan troglodytes DNA, clone: PTB-016J1S.F, genomic survey sequence.
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BP 191 91006 EVRY cedex - FRANCE (B-mail : segref@genoscope.cns.fr
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Pujlyama, A., Hattori, M., Toyoda, A., Taylor, T.D., Yada, T.,
Totoki, Y., Watanabe, H. and Sakaki, Y.
Totoki, Y., Watanabe, H. and Sakaki, Y.
Direct Submitssion

Bubmitted (02-MG-2001) Asao Fujiyama, The Institute of Physical
and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
1-7-22 Suchiro-chou, Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan
(E-mail:chimpbes@gsc.riken.go.jp, URL:http://hgp.gsc.riken.go.jp/,
Tel:81-45-503-9111, Fax:81-45-503-9170)

Clones are derived from the chimpanzee BAC library PTB This BAC end
was generated during the R&D process and may have higher chance of
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Pan troglodytes DNA, clone: PTB-010019.R, genomic survey sequence.
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                                                                                                        Bukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalla; Eutheria; Primates; Catarrhini; Hominidae; Pan.
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                                                                                                                                                                                                                                                                                                                                           Fujiyama,A., Hattori,M., Toyoda,A., Taylor,T.D., Yada,T.,
Totoki,Y., Watanabe,H. and Sakaki,Y.
BAC end sequences of Library PTB
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Pred. No. 4.7e-06;
0; Mismatches 437; Indels 19.
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/organism="Pan troglodytes"
/mol type="genomic DNA"
/db xref="taxon:9598"
/clone="PTB-016J15.P"
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AL Submitted (17-NOV-2003) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);
1-7-22 Suehiro-chou, Faurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mail.hattoriegec.riken.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-45-503-910)
Clones are derived from the mouse BAC library MSMg01. For BAC library availability, please contact Kuniya Abe (abe@rtc.riken.jp). Tsukuba Institute of Physical and Chemical Research (RIKEN) 3-1-1
Koyadai, Tsukuba, 305-0074 Japan
phone: 81-298-36-9189, fax: 81-298-36-9199
e-mail: abe@rtc.riken.jp
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Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
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Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.
Direct Submission
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BAC end Sequences of Library MSMg01
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/clone_lib="MSMg01 Mouse Male BAC Library"
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B Hattori,M., Toyoda,A., Noguchi,H., Kojima,T. and Sakaki,Y.

B Intect Submission

AL Direct Submission

Submitted (17-NOV-2003) Masahira Hattori, The Institute of Physical and Chemical Research (RIKEN), Genomic Sciences Center (GSC);

1-7-22 Suehiro-chou,Tsurumi-ku, Yokohama, Kanagawa 230-0045, Japan (E-mailihattorishen.jp, URL:http://hgp.gsc.riken.go.jp/, Tel:81-45-503-9111, Fax:81-46-503-9170)

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earch completed: October 7, 2005, 00:06:41 Job time : 4983 secs

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DEFLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder
TITLE OF INVENTION: Compounds for Their Use
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: 1000.1042c3
CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT FILING DATE: 2003-06-26
PRIOR APPLICATION NUMBER: 00/450,072
PRIOR PILING DATE: 1999-01-12
NUMBER OF SEQ ID NOS: 116
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15 US-10-156-761-4535
15 US-105150-964-1
US-10-100-679-87

US-10-607-752-86

US-10-607-752-86

US-10-100-679-56

US-10-100-679-56

US-10-100-679-57

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Best Local Similarity 100.0%; Pred. No. 0;
Matches 1655; Conservative 0; Mismatches
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28: /cgn2_6/ptodata/1/pubpna/USOOB_Seq:*

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20: /cgn2_6/ptodata/
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                                          GenCore version 5.1.6 Copyright (c) 1993 - 2005 Compugen Ltd.
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Oy 1141 CAGCGTACTCTTCGCCCCAGAACAGGGGTGCC	1201	Qy 1261 TGGAGATCTATCGCGCGGCTGTGCGGGG	1321	1381	1441 1535	Db 1595 AAGATACTTGGACCTTCCCATCAATAGAAAAAAAAAAAA	Db 1655 GCCCGGTGTTTCGAGTGAACTTGGGCAGGCA		RESULT 4 US-10-100-679-89 ; Sequence 89, Application US/10100679 · philication No. IRS20130540131	GENERAL INFORMATION: APPLICANT: Delcayre, Alain TITLE OF INVENTION: Compounds for Treatment TITLE OF INVENTION: and Methods for Their	FILE REFERENCE: 11000.1042c2 CURRENT APPLICATION NUMBER: US/10/100,679 CURRENT FILING DATE: 2002-03-14 PRIOR PRIOR TOWN NUMBER: PCT/NZ00/00121	FRIOR FILING DATE: 2000-07-10 FRIOR APPLICATION NUMBER: 09/450,072 FRIOR FILING DATE: 1999-11-29 FORTOR FILING DATE: 1999-11-29	FRIOR FEILING DATE: 1999-07-12 ; NUMBER OF SEQ ID NOS: 114 ; SOFTWARE: FRACSEQ for Windows Version 4.0	; SEV 15 NO 9 ; TYPE: DNA ; ORGANISM: Wycobacterium vaccae US-10-100-679-89	Query Match 98.1%; Score 1623; Best Local Similarity 100.0%; Pred. No. 0 Matches 1623; Conservative 0; Mismatche	Oy 6 ATCTACTCGACCTTCGCCGACCGGACCGACCCCCCCCCC	Qy 66 CTGGCGACCGCCTGGGGGTCGCGATCAA
61 ATCCGCTGGCGACCGCCTGCGCGACGACGATCAACGCGATGGAAGACGAAGGCATGG 120	155 ATCCCTGGCGCTGCGCGGGTCGCGATCACGATGAAGACGAAGGCATGG 214 121 TGGCCAACGCTGCCGCATCGGGGAGGAGGGGGGTCGGGGTTGCGCGGTTGCGCG 180	TGGCCAACGCTGCCCGCATCGGCGAGCAGCTGCTCGGAGTCTGCGCGATCTCGCCG CCCGGCACCGTTCGGTCGGCGAAGTCCGCGGCCTCGGCGTCTTCTGGGCGGGATCTGATC	275 CCCGGCACCGTTCGGTCGGCGAAGTCCGCGGCCTCGGCGTCTTCTGGCCGGGATCTGATC 334 241 CAGAACGGCCGGTCTGCGGGTTGAGGTCCTCGGTGCCCAGTGCCGTCGACGACGTCG 300	301 TCGGCGCTGGTGATGCGGCCGCGGTAGGCGTCCTCGGTCCACAACGTCAGCACCGTGCCC 360	361 GGGCGGATGCATCTATCAGTTCGGCCTGGTCGCCAGCCCGCCGAGGCAGCCAGTTCCG 420 	421 CTCCGGCGTCGATCGGGTTGGGTCCGTCCGGCCAGCACCAGCATCCACCCGAGGTCGA 480	481 GCAACGGGTCCCCGACGGTGCACATCTCCCAGTCGATGAACGCCGCGAGCTCGGGGACGT 540	541 CGCGGCGCAGCAGCACGCATGTTCAGATGGCAGTCGCCTGCATGATCCCGGGTTCGGCGT 600	601 CGTCGGGCCTGCGCGAGTCCAGCCAGTCGGCGACATGCACCGACGGGAACGACTCGG 660 	661 GCGCGGGATCTGATCAGCTCGGGAGCCGGGTGCCCAGCACCCGCGGGGAAGCACC 720 	721 GAGACCGGGGGATGTGCCGGGCAGCAGCGCCGTGCACCCCGGGGGACCGGGCC 780	781 CCGCGGACCGCGTCGAAGTCGACCCCGGCCACCGCCGCGCGCG	841 CACGGGATGGATCTGATCGGCAGCATCACGAACAGTAAGCGGTGTTCCGGTTGAATCCA 900	901 ATGTGGTGAGGGGATCCGAAGGCGAACACCGACAGGGAGCAGTCGGAATCTGTC 960 	rceceacctrescercacescercerescrescaaccescescercescescercerescercerescercescercerescercescercerescercerescercescercerescercerescercerescercescercerescercescercescercerescercescercerescercerescercerescercerescercerescerce	ccgcrgccgcccgccrcrcarggccggrrcgrrcarcgrcgrcgrcggrgcrgrragc 	1081 GAAGGGGCCGCCCCCCGTCGTCGATACGGGATACTATCAGCGAGGTGGGGCGTC 1140
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US-10-607-752-89
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; Sequence 88, Application US/10100679
; Publication No. US20030054013A1
; GENERAL INFORMATION:
   APPLICANT: Delcayre, Alain
; TITLE OF INVENTION: Compounds for Their Use
   TITLE OF INVENTION: and Methods for Their Use
   FILE REFERENCE: 11000.1042c2
; CURRENT APPLICATION NUMBER: US/10/100,679
; CURRENT FILING DATE: 2000-07-10
; PRIOR APPLICATION NUMBER: PCT/NZ00/00121
; PRIOR APPLICATION NUMBER: 09/450,072
; PRIOR APPLICATION NUMBER: 09/450,072
; PRIOR APPLICATION NUMBER: 09/450,072
; PRIOR PILING DATE: 1999-11-29
; PRIOR PILING DATE: 1999-07-12
; NUMBER OF SEQ ID NOS: 114
; SEQ ID NOS: 114
; SEQ ID NOS: 14
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Best Local Similarity 100.0%; Pred. No. 0;
Matches 1413; Conservative 0; Mismatches
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ORGANISM: Mycobacterium vaccae
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CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT APPLICATION NUMBER: 10/100,679
PRIOR APPLICATION NUMBER: 10/100,679
PRIOR FILING DATE: 2002-03-14
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
NUMBER OF SEQ ID NOS: 116
SOFTHARE: FASTERQ for Windows Version 4.0
SEQ ID NO 88
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85.4%; Score 1413; D
Best Local Similarity 100.0%; Pred. No. 0;
Matches 1413; Conservative 0; Mismatches
                                              CTGCCAGCTGAGGTTCCCGCTCTCGTCGGATCT
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                                                                                                                           ; Sequence 88, Application US/10607752; Publication No. US20040072224A1; GENERAL INFORMATION:
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; ORGANISM: Mycobacterium vaccae
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PRIOR APPLICATION NUMBER: PCT/NZ00/00121
PRIOR FILING DATE: 2000-07-10
PRIOR APPLICATION NUMBER: 09/450,072
PRIOR FILING DATE: 1999-11-29
PRIOR PILING DATE: 1999-07-12
PRIOR PLING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 114
SOCTWARE: FASTESEQ FOR Windows Version 4.0
SEQ ID NO 87
                                                                                                                                                                       4.0
                                                                                                                                                                                                                                                                  ORGANISM: Mycobacterium vaccae US-10-100-679-87
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Best Local Similarity 99.5%;
Matches 1263; Conservative
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Sequence 87, Application US/10100679
Sequence 87, Application US/10100679
Publication No. US20030054013A1
GENERAL INFORMATION:
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune TITLE OF INVENTION: and Methods for Their Use
FILE REPRESENTS: 1000.1042c2
CURRENT APPLICATION NUMBER: US/10/100,679
CURRENT FILING DATE: 2002-03-14
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Sequence 86, Application US/10607752

Bublication No. US2004007224A1

GENERAL INFORMATION:
TOTAL OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder:
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c3
CURRENT APPLICATION NUMBER: 1051067,752

CURRENT FILING DATE: 2003-06-26
FRICK APPLICATION NUMBER: 107100,679
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Best Local Similarity 100.0%; Pred. No. 1.7e-288;
Matches 1116; Conservative 0; Mismatches 0;
                                                                                                                           Sequence 86, Application US/10100679
Publication No. US20030054013A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                       ; TYPE: DNA
; ORGANISM: Mycobacterium vaccae
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Pred. No. 1.6e-260;
0; Mismatches 296; Indels
               Sequence 56, Application US/10100679
Publication No. US20030054013A1
GENERAL INPORMATION:
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infi
TITLE OF INVENTION: and Methods for Their Use
TILE REFERENCE: 11000.1042c2
CURRENT FILE REFERENCE: 11000.1042c2
CURRENT FILING DATE: 2000-03-10
PRIOR FILING DATE: 2000-07-10
PRIOR PELLING DATE: 2000-07-10
PRIOR PILLING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-01-29
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PRIOR FILING DATE: 1999-01-12
SOFTWARE: PastSEQ for Windows Version 4.0
SOFTWARE: PastSEQ for Windows Version 4.0
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ORGANISM: Artificial Sequence
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Best Local Similarity 78.9%;
Matches 1329; Conservative
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TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder:
TITLE OF INVENTION: Compounds for Their Use
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c3
CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT FILING DATE: 2003-06-26
PRIOR PRILING DATE: 2002-03-14
PRIOR FILING DATE: 1999-11-29
PRIOR FLING DATE: 1999-11-29
PRIOR FLING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 116
SOFTWARE: PSESEE for Windows Version 4.0
SEQ ID NO 56
LENGTH: 1749
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Pred. No. 1.6e-260;
0; Mismatches 296; I)
                                    ; Sequence 56, Application US/10607752; Publication No. US20040072224A1; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ) OTHER INFORMATION: Made in a lab
US-10-607-752-56
                                                                                                                                                                                                                                                                                                                                                                                                                                                    ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 61.1%;
Best Local Similarity 78.9%;
Matches 1329; Conservative
RESULT 13
US-10-607-752-56
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RESULT 14

US-10-100-679-85

i Sequence 85, Application US/10100679

publication No. US20030054013A1

GENERAL INFORMATION:

APPLICANT: Delcayre, Alain

TITLE OF INVENTION: and Methods for Their Use

FILE REFERENCE: 11000.1042c2

CURRENT APPLICATION NUMBER: US/10/100,679

CURRENT APPLICATION NUMBER: US/10/100,679

CURRENT APPLICATION NUMBER: US/200-03-14

PRIOR APPLICATION NUMBER: US/200-07-10

PRIOR APPLICATION NUMBER: 09/450,072

PRIOR PILING DATE: 1999-11-29

PRIOR FILING DATE: 1999-11-29

PRIOR FILING DATE: 1999-07-12

NUMBER: OF SEQ ID NOS: 114

SEQ ID NOS: 114

SEQ ID NOS: 114

SEQ ID NOS: 11000

SEQ ID NOS: 11000

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CONTRACT OF THE CONTRAC
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50.9%; Score 843; DB

Best Local Similarity 100.0%; Pred. No. 1.7

Matches 843; Conservative 0; Mismatches
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1745 ACTGA 1749
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Sequence 85, Application US/10607752

Publication No. US20040072224A1

SEQUENCE 85, Application US/10607752

Publication No. US20040072224A1

SETICANT: Delcayre, Alain

TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders

TITLE OF INVENTION: and Methods for Their Use

FILE REFERENCE: 11000.1042c3

CURRENT APPLICATION NUMBER: US/10/607,752

CURRENT FILING DATE: 2003-06-26

PRIOR PLING DATE: 1090-11-29

PRIOR FILING DATE: 1990-11-29

PRIOR FILING DATE: 1999-10-12

NUMBER OF SEQ ID NOS: 116

SEQ ID NOS: 116

SEQ ID NO 85

LENGTH: 843
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US-10-607-752-85
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GenCore version 5.1.6
Copyright (c) 1993 - 2005 Compugen Ltd.
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US-09-450-072-17
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ALIGNMENTS

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Sequent No. 6338734

GENERAL INFORMATION:
TITLE OF INVENTION: and Methods for Their Use
TITLE REFERENCE: 11000.1042c1
CURRENT APPLICATION NUMBER: US/09/450,072
CURRENT FILING DATE: 1999-11-29
GENERAL FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 58
LENGTH: 1749
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100.0%; Pred. No. 0;
tive 0; Mismatches
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US-09-450-072-58
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ORGANISM: Artificial Sequence
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Best Local Similarity 100.
Matches 1655; Conservative
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1441 CCGGCACCGCGTGGATCGTTCGTCAGTACCCGAAGCTTTGAGAGCTAAGGCCAATTGGG 1500 1535 CCGGCACCGCGGGATCGTCAGTACCCGAAGCTCTTGAGAGCTAAGGCCAATTGGG 1504 1501 AAATACTTGGATCGTCAGTCAGAAAAGCTTTGAGAGCTTTGAGAGCTAATTGGG 1560 1501 AAATACTTGGACCTTCCCATCAATAGAGAAAAAAAAAAA	וא היא מי היא	; SEQ ID NO 58 ; SEQ ID NO 58 ; LENGINE: 1749 ; TYPE: DNA ; ORGANISM: Artificial Sequence ; FEATURE: ; OTHER INFORMATION: Made in a lab	Query Match 100.0%; Score 1655; DB 3; Length 1749; Best Local Similarity 100.0%; Pred. No. 0; No. 0; Matches 1655; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 1 GATCTATCTACTCGACCTTCGACGACGACGACGACGACGACGACGACGACGACGACGAC	Qy 61 ATCCGCTGGCCTCCCGCGGTCGCGGTCCATCAACGCATGGAAGACCATGG 120 Db 155 ATCCGCTGGCGCTGCGCGTCGCGGTCGCGATGGAAGACGATGG 214 Qy 121 TGGCCAACGCTGCCGCATCGGCAGTGCTCGGACGGTCTGGACGGTCTGCGCG 180 Db 215 TGGCCAACGCTGCCGCATCGGCAGGTGCTCGGACCGGTCTGCGCGATCTCGCCG 274	QY 181 CCCGGCACCGTTCGGCGAAGTCCGCGGCCTCGGCGTCTTCTGGGCGGGATCTGATC 240 Db 275 CCCGGCACCGTTCGGTCGGCGGCCTCGGCGCCTCTTCTGGGCGGGGATCTGATC 334 QY 241 CAGAACGGGCCGGTTGCGGTTGAGGTCCTCGGTGCCGTGCGTG	301 395 361 455 421 515
361 GGGCGGATGGATCTATCAGTCCGCCCGCCCGCCGAGGCCAGCCCGTTCCG 420	CGTCGGGCCTGCGCGAGTCCAGCCAGTCGGCGAGCACATGCACCCGACGGGAACGA	781 CCGCGGACCGCTCGGAGTCGACCCCGGCCGCCGCGCGCGC	ATGTGCTGTCAGCAGGCATCCGATGCCGAACACGGCGAGCAGTGGCATCTGTC [CGGCTGCGGCCGGCTCTCCATGGCCGGTTCGTTCGTTCGT	1141 CAGCCGTACTCTTCGCCCCAGAACAGCGGTGGCGCGCGCG	1261 TGGAGATCGATCGCGCGCTGTGCGGAAGGCCGTAGCGGCGTTGCACT 1320 1355

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                                                                                                                Sequence 56, Application US/09450072

| Sequence 56, Application US/09450072
| Patent No. 6588734
| Garber No. 6588734
| Garber No. 6588734
| Garber No. 6588734
| Garber No. 6588736
| TITLE OF INVENTION: and Methods for Treatment of Infectious and Immune System TITLE OF INVENTION: and Methods for Their Use
| FILE REPERENCE: 11000.1042c1
| CURRENT APPLICATION NUMBER: US/09/450,072
| CURRENT APPLICATION NUMBER: 09/351,348
| EARLIER PILING DATE: 1999-07-12
| NUMBER OF SEQ ID NOS: 81
| SOFTWARE FRIENCE FRIENCE OF WINDOWS VERSION 3.0
| SEQ ID NO 56
| LENGTH: 1749
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                                                          AAATCCACGCATCCCATCACCATCACTGA 1655
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Pred. No. 3.5e-213;
0; Mismatches 296;
                                                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: Made in a lab
                                                                                                                                                                                                                                                                                                  TYPE: DNA ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                 Query Match 61.1%;
Best Local Similarity 78.9%;
Matches 1329; Conservative
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US-09-450-072-56
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                                                          GCGCGGGATCTGATCAGCTCGGGGAGCCGGGTGCCCAGCAACGCCAGCGTGGGAAGCACC
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                            GCAACGGGTCCCCGACGGTGCACATCTCCCAGTCGATGAACGCCGCGAGATCGAGCTCGAGACGT
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US-09-351-348-56

Sequence 56, Application US/09351348

Patent No. 6436898

GENERAL INFORMATION:

TITLE OF INVENTION: Compounds and Methods for the Treatment

TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines

TITLE OF INVENTION: US/09/351,348

CURRENT APPLICATION NOWIBER: US/09/351,348

CURRENT PILING DATE: 1999-07-12

NUMBER OF SEQ ID NOS: 81

SEQ ID NOS: 81

SEQ ID NO 56
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Pred. No. 3.5e-213;
0; Mismatches 296;
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ORGANISM: Artificial Sequence
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Best Local Similarity 78.9%;
Matches 1329; Conservative
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Sequence 57, Application US/09450072
Sequence 57, Application US/09450072
Patent No. 6358734
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: and Methods for Their Use
CURRENT APPLICATION NUMBER: US/09/450,072
CURRENT RILING DATE: 1999-11-29
CURRENT FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
NUMBER OF SEQ ID NOS: 81
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Pred. No. 1.5e-153;
0; Mismatches 263;
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US-09-450-072-57
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Best Local Similarity 69.0%;
Matches 1244; Conservative
1745 ACTGA 1749
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69.0%; Pred. No. 1.5e-153;
ive 0; Mismatches 263;
                                                                                                                                  Sequence 57, Application US/09351348; Patent No. 6436898; GENERAL INFORMATION:
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Matches 1244; Conservative
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APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REPERENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 57
LENGTH: 1749 1687 ATCCCATCGCGCGCGCCGCGCGCGCAAATCCACGGATCCCATCACCATCACCATCAC 1746 120 480 436 496 556 180 274 361 GGGCGGATGGATCTATCAGTTCGGCCCTGGTCGCCAGCCCGCCGAGGGCAGCCAGTTCCG 420 376 600 154 241 CAGAACGGGCCGGTCTGCGGGTTGAGGTCCTCGGTGCCCAGTGCCGTCGACGCGACGTCG 300 301 TCGGCGCTGGTGATGCGGCCGCTAGGCGTCCTCGGTCCACAACGTCAGCACCGTGCCC 360 -----GGATCTATCAGTTCGGCCCTGGTCGCCAGCCCGCCGAGGCAGCCAGTTCCG CTCCGGCGTCGATCGGGTTCGGTCCGGCCAGCACCACCAGCATCCACCAGGGTCGA 95 GATCTATCTACTCGACCTTCGCCGACCGACCTACCCGGGTGGCCTGACGTACTCGGCCC 61 ATCCGCTGGCGACCGCCTGCGCGGTCGCGACGATCAACGCGATGGAAGACGAAGGCATGG 155 Arccecrescacceccrescescescescescearcaaceccaresaasaceaasecares TGGCCAACGCTGCCCGCATCGGCGAGCAGGTGCTCGGACCGGGTCTGCGCGATCTCGCCCG 215 rescenacecrececarcescances as a respective and a respective contractions and a respective contractions and a respective contractions and a respective contractions are respectively. CCCGGCACCGTTCGGTCGGCGAAGTCCGCGGCCTCTCGGCCGTCTTCTGGGCGGGGATCTGATC CTCCGGCGTCGATCGGGTCCGTCCGGCCAGCACCACCAGCATCCACCCGAGGTCGA GCAACGGGTCCCCGACGGTGCACATCTCCCAGTCGATGAACGCCGCGAGCTCGGGGACGT GCAACGGGTCCCCGACGTGCACATCTCCCAGTCGATGAACGCCGCGAGCTCGGGGACGT CGCGGCGCGCAGCACGTTGTTCAGATGGCAGTCGCCGTGCATGATCCCGGGTTCGGCGT 1 GATCTATTCTACTCGACCTTCGCCGACCGGGCGTACCCGGGTGGCCTGACGTACTCCGGCC 275 ccceecaccerrceerceeceaagrcceceecerceecercrrcreege Length 1749;

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Sequence 15, Application US/09351348
Patent No. 6436698
GENERAL INFORMATION:
APPLICANT: Delicayre, Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REPRENCE: 11000-1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 15
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100.0%; Pred. No. 6.3e-55;
ive 0; Mismatches 0;

    TYPE: DNA
    ORGANISM: Mycobacterium vaccae
US-09-450-072-15

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Best Local Similarity 100.º
Matches 291; Conservative
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Sequence 15, Application US/09450072

Sequence 15, Application US/09450072

Patent No. 6356734

GENERAL INFORMATION:
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Their Use
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c1

CURRENT APPLICATION WHOBER: US/09/450,072

CURRENT APPLICATION NUMBER: 09/351,348

EARLIER APPLICATION NUMBER: 09/351,348

SEALIER FILING DATE: 1999-07-12

NUMBER OF SEQ ID NOS: 81

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 15.
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APPLICANT: Delicayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder:
TITLE OF INVENTION: and Methods for Their Use
FILLE OF INVENTION: and Methods for Their Use
FILLE REPERENCE: 11000.1042c1
CURRENT APPLICATION NUMBER: US/09/450,072
CURRENT APPLICATION NUMBER: 09/351,348
EARLIER APPLICATION NUMBER: 09/351,348
EARLIER FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                        Sequence 18, Application US/09351348

Batent No. 6436898
GENERAL INFORMATION:
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
TITLE OF INVENTION NUMBER: US/09/351,348
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 18
LENGTH: 261
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15.8%; Score 261; DB 3; 1
Best Local Similarity 100.0%; Pred. No. 2.4e-48;
Matches 261; Conservative 0; Mismatches 0;
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100.0%; Pred. No. 1.5e-40;
tive 0; Mismatches 0;
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241 CCCCGTCGTCCGTCCGATACG 261
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Patent No. 6358734
GENERAL INFORMATION:
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; ORGANISM: Mycobacterium vaccae
US-09-351-348-18
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Best Local Similarity 100.0
Matches 226; Conservative
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APPLICANT: Delcayre, Alain

TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders

TITLE OF INVENTION: and Methods for Their Use
FILE REPERBNCE: 11000.1042c1

CURRENT APPLICATION NUMBER: US/09/450,072

CURRENT APPLICATION NUMBER: US/09/450,072

EARLIER APPLICATION NUMBER: 09/351,348

BARLIER FILING DATE: 1999-07-12

NUMBER OF SEQ ID NOS: 81

SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                            Score 291; DB 3; Pred. No. 6.3e-55;
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15.8%; Score 261; DB 3; I
Best Local Similarity 100.0%; Pred. No. 2.4e-48;
Matches 261; Conservative 0; Mismatches 0;
                                                                              17.6%; Scot.
100.0%; Pred. No. co.
0; Mismatches
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Patent No. 6358734
            ; TYPE: DNA
; ORGANISM: Mycobacterium vaccae
US-09-351-348-15
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                                                                                        Query Match
Best Local Similarity 100.0
Matches 291; Conservative
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LENGTH: 291
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; Sequence 21, Application US/09450072; Patent No. 6358734; Patent No. 6358734; GENERAL INFORMATION: A APPLICANT: Delcayre, Alain; TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disordex; TITLE OF INVENTION: and Methods for Their Use
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US-09-351-348-13
Sequence 13, Application US/09351348
Sequence 13, Application US/09351348
Sequence 13, Application US/09351348
GENERAL INFORMATION:
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT PILING DATE: 1999-07-12
SOFTWARE: FRRESC for Windows Version 3.0
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12.7%; Score 210; DB 3; I
Best Local Similarity 100.0%; Pred. No. 3.8e-37;
Matches 210; Conservative 0; Mismatches 0;
                                                                                         Query Match
12.7%; Score 210; DB 3;
Best Local Similarity 100.0%; Pred. No. 3.8e-37;
Matches 210; Conservative 0; Mismatches 0;
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                        ORGANISM: Mycobacterium vaccae US-09-450-072-13
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LENGTH: 210
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Sequence 13, Application US/09450072

TIPE OF INVENTION: Compounds for Their Use

TITLE OF INVENTION: Compounds for Their Use

TITLE OF INVENTION: UNMERS: US/09/450,072

CURRENT APPLICATION NUMBER: US/09/450,072

CURRENT PILING DATE: 1999-11-29

EARLIER APPLICATION NUMBER: 09/351,348

EARLIER FILING DATE: 1999-07-12

NUMBER: OF SEQ ID NOS: 81

SEQ ID NOS: 81

SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 14, Application US/09351348
Sequence 14, Application US/09351348
Patent No. 6436898
GENERAL INFORMATION:
APPLICANT: Delcayra Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REFERENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT PILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE FastSEQ for Windows Version 3.0
SEQ ID NO 14
LENGTH: 697
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US-09-351-348-14
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Search completed: October 7, 2005, 00:30:42 Job time : 316 secs

OM protein - protein search, using sw model

September 16, 2005, 20:35:08 ; Search time 171 Seconds Run on:

(without alignments) 1300.031 Million cell updates/sec

Perfect score:

US-10-607-752-116 2862 1 IYSTFADRAYPGGLTYSGHP......IPSRAARAAEIHGSHHHHHH 549 Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

1812044 seqs, 404927589 residues Searched:

1812044 Total number of hits satisfying chosen parameters:

imum DB seq length: 0 imum DB seq length: 200000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Database

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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Result		* Query				
No.	Score	Match	Match Length DB	DB	ΩI	Description
1	2862	100.0	549	15	US-10-607-752-116	Sequence 116, App
8	2862	100.0	582	14	US-10-100-679-81	Sequence 81, Appl
3	2862	100.0	582	15	US-10-607-752-81	(<u>8</u> 1)
4	2804	98.0	541	14	US-10-100-679-97	6
S	2804	98.0	541	15	US-10-607-752-97	Ę,
9	2431	84.9	471	14	US-10-100-679-96	
7	2431	84.9	471	15	US-10-607-752-96	
60	2184	76.3	423	14	US-10-100-679-95	
σ	2184	76.3	423	15	US-10-607-752-95	95)
10	2145	74.9	582	14	US-10-100-679-80	
11	2145	74.9	582	15	US-10-607-752-80	Sequence (80) Appl

9

1 IXSTFADRAYDGGLTYSGHPLATACAVATINAMEDEGWVANAARIGEQVLGPGLRDLAAR 60 1 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAAR

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Sequence 94, Appl Sequence 79, Appl Sequence 79, Appl Sequence 79, Appl Sequence 91, Appl Sequence 91, Appl Sequence 91, Appl	2882	Sequence 74, Appl Sequence 74, Appl Sequence 70, Appl Sequence 70, Appl Sequence 70, Appl Sequence 70, Appl	69, 77, 72, 72,	Sequence 73, Appl Sequence 74, Appl Sequence 76, Appl Sequence 76, Appl Sequence 11701, A Sequence 67, Appl Sequence 67, Appl Sequence 8, Appl Sequence 8, Appli Sequence 8, Appli Sequence 33892, A
4 US-10-100-679-94 5 US-10-607-752-94 4 US-10-100-679-79 5 US-10-607-752-79 6 US-10-607-752-79 7 US-10-677-752-93	US-10-100-679 US-10-607-752 US-10-100-679 US-10-607-752 US-10-607-752	4 US-10-100-679-74 5 US-10-607-752-74 4 US-10-100-679-70 4 US-10-100-679-90 5 US-10-607-752-70 5 US-10-607-752-90	4 US-10-100-679-69 5 US-10-607-752-69 4 US-10-607-752-69 5 US-10-607-752-77 4 US-10-156-761-12085 4 US-10-100-679-72	4 US-10-100-679-73 5 US-10-607-752-73 4 US-10-100-679-76 5 US-10-607-752-76 105-09-815-242-11701 4 US-10-100-679-67 5 US-10-084-846A-8 8 US-10-450-763-33892
372 372 582 582 182 182	222 222 121 121 121 1421	867 75 11 12 12 13 13 14 14 15 16 16 16 16 16 16 16 16 16 16 16 16 16	4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	19608 11 19608 11 11 11 11 11 11 11 11 11 11 11 11 11
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ALIGNMENTS

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Sequence 116, Application US/10607752

Publication No. US20040072224A1

GENERAL INPORMATION:

TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder:

TITLE OF INVENTION: Compounds for Their Use

TITLE OF INVENTION: and Methods for Their Use

TITLE OF INVENTION: 1000.10423

CURRENT APPLICATION NUMBER: US/10/607,752

CURRENT FILING DATE: 2003-06-26

PRIOR FILING DATE: 1999-11-29

PRIOR FILING DATE: 1999-11-29

PRIOR FILING DATE: 1999-11-22

NUMBER OF SEQ ID NOS: 116

SOUTHWARE: FastSEQ for Windows Version 4.0

ENGINE SEQ ID NO 116

LENGTH: 549
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OTHER INFORMATION: Made in a lab
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
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US-10-607-752-116
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Infectious and Immune System Disorders
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                        94 HESUGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA
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100.0%; Score 2862; DB 15; Length 582;
Best Local Similarity 100.0%; Pred. No. 3.9e-197;
Matches 549; Conservative 0; Mismatches 0; Indels 0;
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Publication No. US200400722241
GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Compounds for Treatment of Information and Methods for Their Use
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION OF 1000.10423
CURRENT FILING DATE: 2002-03-14
PRIOR FILING DATE: 1999-17-29
PRIOR FILING DATE: 1999-17-29
PRIOR FILING DATE: 1999-17-20
PRIOR FILING DATE: 1999-17-20
SOFTWARE: FastSEQ for Windows Version 4.0
SOFTWARE: FastSEQ for Windows Version 4.0
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; OTHER INFORMATION: Made in a lab
US-10-607-752-81
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TYPE: PRT
ORGANISM: Artificial Sequence
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US-10-607-752-81
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| GENERAL INFORMATION:
| APPLICANT: Delcayre, Alain
| TITLE OF INVENTION: and Methods for Their Use
| FILLE REFERENCE: 11000.1042c2 |
| FILLE REFERENCE: 1000.0712 |
| FIL
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                        HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA
                                                          61 HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA
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US-10-100-679-81
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US-10-100-679-81
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DARLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c3
CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT APPLICATION NUMBER: 10/100,679
PRIOR APPLICATION NUMBER: 10/100,679
PRIOR FILING DATE: 1999-107-14
PRIOR FILING DATE: 1999-107-12
PRIOR APPLICATION NUMBER: 09/450,072
PRIOR FILING DATE: 1999-07-12
PRIOR FILING DATE: 1999-07-12
NUMBER OF SEQ II NOS: 116
SOFTWARE: FastSED for Wandows Version 4.0
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                           121 DGSISSALVASPPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMNAASSGTSR
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Pred. No. 5.2e-193;
); Mismatches 0;
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Publication No. US20040072224A1
GENERAL INFORMATION:
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100.0%; Pre
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Best Local Similarity 100.1
Matches 541; Conservative
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Publication No. US20030054013A1
GENERAL INFORMATION:
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders
TITLE OF INVENTION:
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100.0%; Pred. No. 5.2e-193;
ive 0; Mismatches 0;
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CURRENT APPLICATION NUMBER: US/10/100,679
CURRENT FILING DATE: 2002-03-14
PRIOR FILING DATE: 2000-07-10
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-07-12
PRIOR FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS-114
SEQ ID NO 97
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Best Local Similarity 100.
Matches 541; Conservative
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APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: 1000.1042c3
CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT APPLICATION NUMBER: 10/100,679
PRIOR FILING DATE: 2002-03-14
PRIOR FILING DATE: 2002-03-14
PRIOR FILING DATE: 1099-11-29
PRIOR FILING DATE: 1099-11-29
PRIOR FILING DATE: 1099-11-29
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Pred. No. 2.8e-166;
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 96
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; Bublication No. US20030054013A1
; GENERAL INFORMATION:
; APPLICANT: Deloayre, Alain
; TITLE OF INVENTION: compounds for Treatment of Infectious and Immune System Disorders
; TITLE OF INVENTION: and Methods for Their Use
; TITLE OF INVENTION: and Methods for Their Use
; TITLE OF INVENTION: and Methods for Their Use
; FILE REPRENCE: 11000.1042c2
; CURRENT APPLICATION NUMBER: US/10/100,679
; CURRENT FILING DATE: 2000-07-10
; PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-07-12
; PRIOR FILING DATE: 1999-07-12
; NUMBER OF SEQ ID NOS: 1147
; SOFTWARE: FastSEQ for Windows Version 4.0
; SOFTWARE: FastSEQ for Windows Version 4.0
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; ORGANISM: Mycobacterium vaccae
US-10-100-679-96
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APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorder TITLE OF INVENTION: Compounds for Their Use
FILE OF INVENTION: and Methods for Their Use
FILE REPERENCE: 11000.1042c3
CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT FILING DATE: 2003-06-26
PRIOR PAPLICATION NUMBER: 10/100,679
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 116
SOFTWARE: FastSEQ for Windows Version 4.0
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Publication No. US20030054013A1
GENERAL INFORMATION:
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders:
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c2
CURRENT APPLICATION NUMBER: US/10/100,679
CURRENT FILING DATE: 2002-03-14
PRIOR PRDICATION NUMBER: 9C7/NZ00/00121
PRIOR FILING DATE: 2000-07-10
PRIOR FILING DATE: 2000-07-10
PRIOR PLICATION NUMBER: 09/450,072
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                                                                                                                                                                                                                                                                                                                                                  TYPE: PRT ; ORGANISM: Mycobacterium vaccae US-10-607-752-95
    US20040072224A1
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US-10-100-679-80
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Sequence 95, Application US/20030054013A1
GENERAL INFORMATION:
THILD OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: 1,000-1042c2
CURRENT APPLICATION NUMBER: US/10/100,679
CURRENT APPLICATION NUMBER: US/10/100,679
PRIOR APPLICATION NUMBER: 09/450,072
PRIOR APPLICATION NUMBER: 09/450,072
PRIOR PLING DATE: 1999-11-29
PRIOR PLING DATE: 1999-10-12
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 114
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 95
LENGTH: 423
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; Sequence 95, Application US/10607752
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US-10-100-679-95
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; Sequence 94, Application US/10100679; Publication No. US20030054013A1; GENERAL INFORMATION:
; APPLICANT: Delcayre, Alain
; TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders; TITLE OF INVENTION: and Methods for Their Use
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA 120
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                                                                                                                                                                                                                                                                                                                                Score 2145; DB 15;
Pred. No. 1.3e-145;
0; Mismatches 0;
PRIOR APPLICATION NUMBER: 10/100,679
PRIOR FILING DATE: 2002-03-14
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-07-12
PRIOR FILING DATE: 1999-07-12
PRIOR FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 116
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 80
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                                                                                                                                                                                                          TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                Query Match
Best Local Similarity 67.4%;
Matches 442; Conservative
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US-10-100-679-94
                                                                                                                                                                                       LENGTH: 582
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Publication No. US20040072224A1
GENERAL INFORMATION:
APPLICANT: Delcayer, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c3
CURRENT APPLICATION NUMBER: US/10/607,752
CURRENT FILING DATE: 2003-36-26
                                                                                                                                                                                                                                                                  Score 2145; DB 14;
Pred. No. 1.3e-145;
0; Mismatches 0;
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PRIOR APPLICATION NUMBER: 09/351,348
PRIOR FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 114
SOFTWARE: FASISEQ for Windows Version 4.0
SEQ ID NO 80
LENGTH: 582
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US-10-100-679-80
                                                                                                                                            TYPE: PRT
ORGANISM: Artificial Sequence
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Best Local Similarity 67.4%;
Matches 442; Conservative
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TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders TITLE OF INVENTION: and Methods for Their Use TITLE OF INVENTION: and Methods for Their Use TITLE OF INVENTION: 11000.1042c2 CURRENT APPLICATION NUMBER: US/10/100,679 CURRENT FILING DATE: 2002-03-14 PRIOR FILING DATE: 2000-07-10 PRIOR FILING DATE: 1999-11-29 PRIOR FILING DATE: 1999-11-29 PRIOR FILING DATE: 1999-11-29 PRIOR FILING DATE: 1999-11-29 SOFTWARE: PSECON FOR SEQ ID NOS: 114 SOFTWARE: FSESEG for Windows Version 4.0
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                                             Score 1919; DB 15;
Pred. No. 1.3e-129;
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57.1%; Pred. No. 2e-128;
tive 0; Mismatches 0;
                             67.1%; Sco. 100.0%; Pred. No. ...
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US-10-100-679-79
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ORGANISM: Artificial Sequence
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Matches 399; Conservative
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Matches 372; Conser
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US-10-607-752-94
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100.0%; Pred. No. 1.3e-129;
tive 0; Mismatches 0;
               CURRENT APPLICATION NUMBER: US/10/100,679
CURRENT FILING DATE: 2002-03-14
PRIOR PILING DATE: 2000-07-10
PRIOR FILING DATE: 2000-07-10
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-11-29
PRIOR FILING DATE: 1999-17-12
NUMBER OF SEQ ID NOS: 114
SOFTWARE: PRESEQ for Windows Version 4.0
SEQ ID NO 94
LENGTH: 372
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Publication No. US20040072224A1
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                    ; ORGANISM: Mycobacterium vaccae US-10-100-679-94
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FILE REFERENCE: 11000.1042c2
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Best Local Similarity 100.
Matches 372; Conservative
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LENGTH: 372
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Search completed: September 16, 2005, 20:48:59 Job time : 173 secs
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Libication No. US2004007224A1

LIBRAL INFORMATION:

APPLICAMT: DelCayre, Alain

TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders

TITLE OF INVENTION: and Methods for Their Use

TITLE OF INVENTION: and Wethods for Their Use

TITLE OF INVENTION: and Wethods for Their Use

TITLE OF INVENTION NUMBER: US/10/607,752

CURRENT FILING DATE: 2003-06-26

FRIOR FILING DATE: 1999-11-29

FRIOR FILING DATE: 1999-07-12

NUMBER OF SEQ ID NOS: 116

SEQ ID NO 79

SEQ ID NO 79

LEAGTH: 582
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                    154 DGSDRQASRTVSGVPVESNVLSAGIRCRTPTTRAVAICLATLASRGVVAPQPAGDVARAA 213
                                                                                                                                               274 AVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSISSALVASPPRAASSAPASIGLGPSGQ 333
                                                                                                                                                                                     HTSIHPRSSNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSAS 210
                                                                                                                                                                                                     HISTHPRSSNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSAS 393
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; OTHER INFORMATION: Made in a lab US-10-607-752-79
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ORGANISM: Artificial Sequence
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US-10-607-752-79
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IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAAR
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OM protein - protein search, using sw model

September 16, 2005, 20:44:49; Search time 43 Seconds Run on:

(without alignments) 1228.442 Million cell updates/sec

US-10-607-752-116 score: Perfect sc Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

283416 seqs, 96216763 residues Searched:

Lal number of hits satisfying chosen parameters:

__mum DB seq length: 0 Maximum DB seq length: 200000000

Post-processing: Minimum Match 08
Maximum Match 1008
Listing first 45 summaries

1: pir1:* 2: pir2:* 3: pir3:* 4: pir4:* PIR 79:* Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

STIMMARTES

collagen alpha 2(V	immediate-early pr	155K transcription	hypothetical prote	long chain fatty a	hook-containing pr	collagen alpha 1(X	probable multi-dom	hypothetical prote	AF17 protein - hum	hypothetical prote	aminotransferase [All-1 protein +GTE	hypothetical prote	MHC class III hist	mucin (clone PGM-2
CGHU2V	EDBE23	EDBEF6	T25848	T02837	S57459	S28791	T37057	T02345	I38533	T35547	G90446	A48205	A75399	B35098	S55316
~	 1		7	7	~	~	~	N	N	7	N	~	N	~	~
1496	919	1487	467	1607	538	888	2240	1791	1093	1678	444	3869	527	2142	317
4.8	4.8	4.8	4.8	4.8	4.7	4.7	4.7	4.7	4.6	4.6	4.6	4.6	4.6	4.6	4.6
137.5	136.5	136.5	136	136	135.5	135.5	134.5	134	133	133	132.5	132.5	132	132	131
30	31	32	33	34	32	36	37	38	39	40	41	42	43	44	45

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probable aminotransferase - Streptomyces coelicolor

C.Species: Streptomyces coelicolor C.Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 09-Jul-2004

C;Accession: T35390
R;Murphy, L; Harris, D.; James, K.D.; Parkhill, J.; Barrell, B.G.; Rajandream, M.A. submitted to the EMBL Data Library, June 1999
A;Reference number: Z21576
A;Accession: T35390
A;Accession: T35390
A;Accession: T75390
A;Accession: T553 A;Molecule type: DNA
A;Residues: 1-451 <MUR>
A;Residues: 1-451 <MUR>
A;Residues: 1-451 <MUR>
C;Genetics: Strain A3(2)

Length 451; A;Gene: SCOEDB:SC66T3.33 C;Superfamily: ornithine-oxo-acid aminotransferase

ö Gaps ö 13; Indels 9.5%; Score 273; DB 2; 69.3%; Pred. No. 1.8e-09; tive 10; Mismatches 13; Query Match 9.5% Best Local Similarity 69.3% Matches 52; Conservative

1 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAAR 60 Š

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| ||||||| |:||| HPSVGEVRGTGMFWA 372 61 HRSVGEVRGLGVFWA 75 ò 셤

142607 transcription activator - equine herpesvirus 4 (strain NS80567)

C.Species: equine herpesvirus 4
A.Variety: strain NS80567
C.Date: 11-Jan-2000 #text_change 09-Jul-2004
C.Date: 11-Jan-2000 #sequence_revision 11-Jan-2000 #text_change 09-Jul-2004
C.Accession: T42607; T42622
R.Telford, E.A.; Watson, M.S.; Perry, J.; Cullinane, A.A.; Davison, A.J.
J. Gen. Virol. 79, 1197-1203, 1998
A.;Title: The DNA sequence of equine herpesvirus-4.
A;Reference number: Z22173; MUID:98264497; PMID:9603335

A;Accession: T42607 A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA

A;Residues: 1-1442 <TEL> A;Cross-references: UNIPROT:042066; EMBL:AF030027; NID:g2605950; PIDN:AAC59599.1; PID:g2 A;Experimental source: strain NS80567

A; Accession: T42622

A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA

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EA
                                           Query Match
Best Local S:
Matches 154
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C;Species: suid herpesvirus 1
C;Accession: A45344
R;VIcek, C.; Kozmik, Z.; Paces, V.; Schirm, S.; Schwyzer, M.
Virology 179, 365-377, 1990
A;Ricle: Pseudorabies virus immediate-early gene overlaps with an oppositely oriented op A;Reference number: A45344
A;Reference number: A45344
A;Reference number: A54344
A;Residues: 1-1446 < VLC>
A;Residues: 1-1446 < VLC>
C;Superfamily: herpesvirus immediate-early protein IB175
C;Superfamily: herpesvirus immediate-early protein regulation
C;Superfamily: herpesvirus immediate-early protein; transcription regulation
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A;Residues: 1-1442 <TE2>
A;Cross-references: EMBL:AF030027; NID:g2605950; PIDN:AAC59599.1; PID:g2606027
A;Experimental source: strain NS80567
C;Genetics:
A;Gene: 64
C;Superfamily: herpesvirus immediate-early protein IB175
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         655 SEIPSPACPPEALCSNPAGLET----AACALYELRDLVERARLLGDSDPIHRLGPDELRL 710
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 : | : | : | : | : | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | | : | : | | : | : | | : | : | | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | : | 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             883 VNGRPRCKSGKRRSEPLE--PA---AGELPGSRGGYDPVAPVESPPAPKRRVGT---QAPR 935
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   290 TVSGVPVESNVLSAGIR-----CRIPTTRAVAICLATLASRGVVAPQPAGDVARAAAAG 343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          344 SPWPVRSVARPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHP 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SIHPRSSNGSPTV--HISQSMNAASSGTSRRSSTLFRWQS----PCMIPGS----ASSGL 202
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    936 ALGPMPPEGPHRRGGPRRVPHGDCHTP----------PPGDSARAAYC- 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GGGRHVQIVASARGTVEIGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPA 463
                                                                                                                                                                                                                                                                                                                                                                                                                                        711 AVRAVLVVARTVAPLVRYNAEGARARASAWTITQAVFSIPSLAGGMLGEAVGL-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49 ------RGLGVFWAGSDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 595 CAALGPRRKTAAAGPGTRTPKPTAFRLRELGDVCVLACQAVFEALLRLRGGASAVPGLDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ---RORGKHRDRRDVPAQORPAVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSDRQASR
                                                                                                                                                                                                                                                                                                                                                                                            5 FADRAYP------GGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQ----
                                                                                                                                                                                                                                                                                                                              Gaps
                                                                                                                                                                                                                                                 6.4%; Score 182; DB 2; Length 1442;
21.4%; Pred. No. 0.0021;
tive 47; Mismatches 170; Indels 282;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        203 RESSQSASTCTDGNDSGA---GSDQLGEPGAQQ-----
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1015 REGARFGELAASGP----
                                                                                                                                                                                                                                             Query Match
Best Local Similarity 21.4
Matches 136; Conservative
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C;Species: human herpesvirus 1
C;Date: 31-Mar-1988 #sequence_revision 31-Mar-1988 #text_change 09-Jul-2004
C;Accession: A29152
C;Accession: A29152
B;Perry, L.J.; Rixon, F.J.; Everett, R.D.; Frame, M.C.; McGeoch, D.J.
J. Gen. Virol. 67, 2365-2380, 1986
A;Title: Characterization of the IB110 gene of herpes simplex virus type 1.
A;Reference number: A29152; MUID:87059760; PMID:3023529
A;Reference number: A29152
A;Molecule type: DNA
A;Residues: 1-775 <-PER>
A;Residues: 1-775 <-PER>
A;Cross-references: UNIPROT:P08393; GB:X04614; NID:g59832; PIDN:CAA28285.1; PID:g59833
C;Genetics:
                                                                         31;
                                                                                                                                                                                                                                                                        86 VEVLGAQCRRRDVVGAGDAAAVGVLGP-----QRQHRARADGSI------S 125
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            :
215 QPAAVAAAPARRGPA-SPASPAAGPVSAPGGGGAPSAGGDRGRHHHQHREPLLDBPAAAR 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               -------ARG------280
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 345
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               438
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                                                                                                                                                                                                                                                                                                                                       68 AAVL------AAAAGATRPPRPPSAQQQQPRRGSGEIVVLDDEDEEEDEPG 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 114 SPAAGSPGRA-----LHQGSEHGHLVLGPRSRAGSGPRPPTPAALAAAEAGAPGGPGR 166
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      182 SSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGAGSDQLGEPGAQQRQRGKHRDR 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       274 RLDPRPLGARSPVSSNPNSNSNTTTVAVETVÅRGPEKDEDGLGLAGDGGAPPQRQPRR 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            281 -----ROASKTVSGVPVESNVLS 302
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  346 WPVRSVARP------VAVLRTGPPPRRPSDTGSITQVGRPAVLFAPEQRCRRRA- 393
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              500 GAGDSREGLWDEDDVRQ---AAARY----RAAAGPVPVFIPEMGDSRK---QHEALVRLI 549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                439 YVAPVGEKODYID-----PALVGSIAAT 475
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    476 GPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAA 535
                                                                                                                                                                                                      67
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                                                                                                                                                                                                      19 LAAAAAAEEEGIAS------GPDGGSQGSRRRGSSGEDLLFGPGGLFSD-DAAEAE
                                                                                                                                       27 VATINAMEDEGMVANAARIGEQVLGPGLRDLAARHR-SVGEVRGLGVFWAGSDPERAGLR
                                                                                                                                                                                                                                                                                                                                                                                                         126 SALVASPPRAASSAPASIGLGPSGQHTSIHPRSSNGS----PTVHISQSMNAASSGTSRR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------DQRSCRQIHPGGGRHVQIVASARGTV----EIGSIARLCGKDEAVAALH
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 303 A-----GIRCRTPTTRAVAICLATLASRG-----VVAPQPAGDVARAAAGSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                394 SSSSEGEEDEGVRPGAPLARA------GPPPSPPAPAAPRPSASSAAASP
                                                                     Gaps
                                                                     290;
      Length 1446;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immediate-early protein IE110 - human herpesvirus 1 (strain 17)
                                                                     Indels
6.0%; Score 172; DB 1; Le
21.3%; Pred. No. 0.0085;
tive 54; Mismatches 224;
                           Local Similarity 21.3
nes 154; Conservative
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A;Residues: 1-1733 <VLC>
A;Residues: 1-1733 <VLC>
A;Cross-references: UNIPROT:P33485; GB:M34651; NID:g334070; PIDN:AAA47471.1; PID:g334072
C;Superfamily: pseudorabies virus 1 nuclear antigen
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                                                                                                                                                                             202
                                                                                                                                                                                                                                                                                               262
                                                                                                                                                                                                                                                                                                                                                                                                          307
                                                                                                                                                                                                                                      --QHRARADGSISSALVASPPRAASSAPASI-----GLGPSGQHTSIHPRSSNGS-- 162
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   -----GSDQLGEPGAQQRQRGKH--RDRRDV----PAQQRPAVHPAG-PG-PADRVG 264
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       308 APKEQDLEGATVVGAPAEEQKARGPSVGKGTKEASLLEPTDKQPA---AGLPGRPVSRV- 363
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TRIPAKTTPSPKTPPGSGEPPKSGERSGYSSPGSPGTPGSRSRTPSLPTPFTREPKKVAV 473
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LRTGPPPRRPSDTGSITQVGRPAVLFAPE-QRCRRRADQRSCRQIHPGGGRHVQIVASAR 416
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                                                              EGTTAEEAGIGDT---PNMEDQAAGHVTQEPQKVEIFSQSLLVEPGRREGQAPDSGISDW 144
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     265 VDPGRHRRARGQHQPRDGSDRQASRTVSGVPVESNVLSAGIRCRTP-----TTRA 314
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --PQLKARVAGVSKDRTGNDEKKAKGADG-----KTGAKIATPRGAATPGQKGTSNA 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -- PWPVRSVARPVAV 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          845
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             51 --GPGLRDLAARHRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVG 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               V-LGPQRQHRARADGS----ISSALVASP-----PRAASSAPASIGLGPSG 149
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               20
                                                                                                                                                              THQQVPSMSGAPLPPQGLREATHQPLGT--RPEDVERSHPASELLWQESPQKEAWGKDRL
                                                                                                                                                                                                                                                                          GSEEEVDEDITMDESSQESPPSQASLAPGTATPQARSVSASGVSGETTSIPGFPAEGSIP
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                                                                                                                                                                                                                                                                                                                                                    -PTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGA-
                                                                                                                       -----AGSDPERAGLRV---EVLGAQCRRRDVVGAGDAA-AVGVLGPQR-----
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C,Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C; Accession: B45344
R; Vlcek, C.; Kozmik, Z.; Paces, V.; Schirm, S.; Schwyzer, M. Virology 179, 365-377, 1990
A; Title: Pseudorabies virus immediate-early gene overlaps with A; Reference number: A45344; MUID:91021039; PMID:2171211
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23.2%; Pred. No. 0.024;
tive 45; Mismatches 218;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     -GEKQDYIDRALRNIGPYLPAEVPALVGSIAATGPVPG
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        EGMVANAARIGEQVLGPGLRDLAARH-
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A;Status: translation not shown
A;Molecule type: DNA
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Matches 142; Conserv
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R;Goedert, M.; Spillantini, M.G.; Crowther, R.A.
F;Goedert, M.; Spillantini, M.G.; Crowther, R.A.
R;Goedert, M.; Spillantini, M.G.; Crowther, R.A.
R;Goedert, M.; Spillantini, M.G.; Crowther, R.A.
R;Goedert, M.; Spillantini, M.G.; Crowther, R.A.
A;Title: Cloning of a big tau microtubule-associated protein characteristic of the perip A;Reference number: A38235; MUID:92179305; PMID:1542696
A;Accession: A38235
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A;Introns: 19/3; 242/1
C;Superfamily: herpesvirus immediate-early protein IE110; RING finger homology
C;Keywords: DNA binding; early protein; transcription regulation; zinc finger
F;112-162/Domain: RING finger homology <RNG>
F;116-156/Region: zinc finger C3HC4 motif
                                                                                                                                                                                                                                                                                                                                                                                                          -----MNAASSGTSRRSSTLFRWQSPCM 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                355 LANNRDPIV-ISDSPPASPHRPPAAPMPGSAPRPGPPASAAASGPARPRAAV----APCV 409
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ------IPGSASSGLRESSQSASTCTDGNDSGAGSDQG 226
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -----ASRTVSGVPVESNVLSAGIRCR----TPTTRAVAICLATLASRGVVAPQPAGDV 336
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              486
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               RAPPPGPGPRAPAPAPAARPADARRVPQSHSSLAQAANQEQSLCRARATVARGS---G 466
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       EPGAQQRQRGKHRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSDRQ 286
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 661 TITGDCLPILDMETGNIGAYV-----VLVDQTGNMATRLRAAVPG--WSRRTLLPETAGN 713
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              467 GPGVE----GGHGPSRGA-APSGAAPLPSAASVEQEAAVRP-RKRRGSGQENPSPQSTRP
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                                                                                                                                                                       Query Match 5.9%; Score 169; DB 1; Length 775; Best Local Similarity 23.4%; Pred. No. 0.0066; Matches 118; Conservative 38; Mismatches 164; Indels 184;
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22.8%; Pred. No. 0.0088;
tive 69; Mismatches 189; Indels 188;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              441 APVGEKQDYIDRALRNIGPYLPAEVPALV---GSIAA--TGPVPGTAWIVR
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Date: 31-Dec-1993 #sequence_revision 31-Dec-1993
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QSA 209 QY 284 DRQASRTVSGV	GPA 260 QY 311 TTRAVAICLATLASRGVVAPQPAGDVARAAAAGSPWPVRSVARPVAVLRTGPPPRRP-	SNV 300 QY 368 -SDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHFGGGRHVQIVASARGTVEIGSIAR	SVA 352 QY 427 LCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSIAATGPVP :	QIV 412 QY 480 GTAWIURQYPKLIRAKANWEDTWTFPSIEEKHRPRGSVAGPV 521 1180 Db 2155 KTSDAVVQTEDVATSKTNSSTSPSLESRDPPQAPASGFV 2193	472 RESULT 8 1207 JQ0405	532 1257	C;Accession: JQQ405 R;Shiota, S.; Nakayama, H. Mol. Genet. 217, 332-340, 1989 A;Title: Micrococcus luteus homolog of the Escherichia coli uvrA gene: identification A;Reference number: S04781; MUID:89364117; PMID:2549377		es, A.; Kuipers, Ouery Match Best Local Similarity 24.5%; Pred. No. 0.048; is coli tumour su Matches 151; Conservative 37; Mismatches 220; Indels 209;	Cy 57 LAARHRSVGEVRCLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAV	AA10207.1; PID:g4 QY 108 474/3; 500/3; 53 Db 478	Oy 161 GSPTVHISOSMNAASSGTERRSSTLFRWQSPCMIPGSASSGLRESSQSASTCT :	131 Qy 221 131 Db 564 1785	171 Qy 253 171 Db 622 1843	231 295 PVESNVLSAGIRCRTPTTRAVAICLATLASR 231	-RDGS 283
150 QHTSIHPRSSNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSA : 956 RWVRAGGGAGVAGGAGEAGLGAGAGL	210 STCTDGNDSGAGSDQLGEPGAQQRQRGKHRDRRDVPAQQRPAVHPAGPGPA :	261 DRVGVDPGRHRRARGQ	301 LSAGIRCRTPTTRAVAICLATLASRGVVAPQPAGDVA-RAAAAGSPWPVRSVA	353 RPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQIV	413 ASARGTVEIGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSI 	473 AATGEVDGTAMIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPS 1208 VAAAHGHG-AHRVRQGPERVLGGHGVPDVRQRRGHAAGDEGAVAVGRVDPA	533 RAARAAEIHGSHH 545 	RESULT 7 T30258 adenomatous polyposis coli protein 2 - mouse N;Alternate names: APC2 protein C;Species: Mus musculus (house mouse) C;bate: 22-Oct-1999 #sequence_revision 22-Oct-1999 #text_change 09-Jul-2004	Arcesson: 1920: Arkpatrick, C.; van de Wetering, M.; Molenaar, M.; Miles, Curr. Biol. 9, 105-108, 1999 Curr. Biol. 19, 105-108, 1999 A.;title: Identification of APC2, a homologue of the adenomatous polyposis A.;Reference number: 20076; WITTD-99147086; PMTD-10021469	cession: T30258 atus: preliminary, translated from GB/EMBL/DDBJ bleeule type: DNA	A;KCBIQUEB: I-22/4 «VAN» A;Crosatics: C;Genetics: A;Gene: APC2 A;Introns: 47/3; 78/1; 138/2; 174/3; 212/3; 238/3; 271/3; 396/1; 428/1; 474/	Query Match 5.7%; Score 163.5; DB 2; Length 2274; Best Local Similarity 24.1%; Pred. No. 0.045; Matches 126; Conservative 56; Mismatches 191; Indels 149; Gaps	79 PERA-GLRVEVLGAQCRRRDVV-GAGDAAAVGVLGPQRQHRARADGSISSALVAS	132 PPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSM 1786 PKKTGTSGTTQPETVTKAPSPEQQRSRSLHRPGKISELAALRHPPRSATPPARLAKTP	172 NAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGAGSDQLGEPGAQ:::: : : : :	232 QRQRGKGRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRHRRARGQHQPRD

OY 487 OYPKILRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAARAAEIHGSHH 545 	RESULT 10 JC4743 fatty-acid synthase (EC 2.3.1.85) - Mycobacterium bovis	ay-1996 JC474	k;Fernandes, N.D.; Kolattukudy, F.E. Gene 170, 95-99, 1996 A;Title: Cloning, sequencing and characterization of a fatty acid synthase-encoding gene A;Reference number: JC4743; MIID:96200863; PMID:8621098	A;Accession: JC4743 A;Accession: JC4743 A;Rolecule type: DNA A;Residues: 1-2796 oFER.> A;Residues: 1-2796 oFER.> A;Residues: 1-2796 oFER.> A;Residues: 1-2796 oFER.> A;Cross-references: UNIPROT:Q48926; GB:U36763; NID:g1036834; PIDN:AAB03809.1; PID:g10368 A;Note: the source is designated as Mycobacterium tuberculosis var. bovis BCG C;Comment: This enzyme catalyzes both de novo synthesis and chain elongation of fatty ac C;Genetics: A;Gene: fas C;Superfamily: Mycobacterium tuberculosis fatty-acid synthase C;Superfamily: Mycobacterium tuberculosis fatty-acid synthase C;Stywords: acyltransferase; coenzyme A; phosphopantetheine; phosphoprotein F;2188-2193/Region: nucleotide binding #status predicted F;57/Active site: Ser #status predicted	e d	matches 140; Conservative 59; Mismatches 216; Indels 242; Gaps 1 IYSTFADRAYPGGLTYS-GHPLATACAVATINAMEDEGNVANARIGEQVLGPGLRDLAA 5 :: : : ::::	204 IVAGWAEKAGLDVALARELADAILIRKVDWVDEITRVHRAGARWILDLGPGDILT 25 60 RHRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRAR 11	259 R-LTAPVIKGLGIGIVPAKTRGGQRNLFTVGATPEVAR 29 120 ADGSISSALVASPPRAASSAPASI-GLGPSGQHTSIHPRSSNG 16	DD 296 AWSSTAPTVVKLPIDGRVKLSTRFTRLTRKSPILLLAGGMTPTTVDAKIVAAAANGKHWAELA 355 QY 162SPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTCTD 214	QY 215 GNDSGAGSDQLGEPGAQQRQRGKHRDRRDVPAQQRPAVHPAGP 257	258GPADRVGVDPGR	QY 283SDRQASRTVSGVPVESNVLSAGIRCR 308 	QY 309 TPTTRAVAICLATLASRGVVAPQPAGDVARAAAAGSPWPVRSV 351	OY 352 ARPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPBQRCRRRADQRSCR 399	400GIRFON GARCHER GARCH
QY 405 GGRHVQIVASARGTVEIGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPA- 463 DD	Db 834 PVLLQHQGRALRGVRGRRHAEDRDELPAGRLRAVRGVPRGPVQPGDARGHLQGQEHRR 891 Qy 483WIVRQYPKLLRAKANWEDTWTPPSIEEKHRPRGSVRVNLGRAIP 531	Db 892 GPRHADRGGRGLLQRVHPHLAVPGHARRRSGLRPSGPARHHALGRRGP 940	941 AREAGGRAPEALQRPHH 95	RESULT 9 B40505 hypothetical protein - suid herpesvirus 1 (strain Indiana-Punkhuser or Becker) C_Species: suid herpesvirus 1 te: 10-Apr-1992 #sequence_revision 10-Apr-1992 #text_change 09-Jul-2004 ccession: B40505 R;Cheung, A.K. J. Virol. 65, 5260-5271, 1991 A;Title: Cloning of the latency gene and the early protein 0 gene of pseudorabies virus. A;Reference number: A40505; WUID:91374576; PMID:1654441	A;Status: preliminary A;Molecule type: mRNA A;Residues: 1-1958 <che> A;Cross-references: UNIPROT:Q69340; GB:M57505; NID:g334066; PIDN:AAA47468.1; PID:g334068 C;Superfamily: pseudorabies virus 1 nuclear antigen</che>	Query Match 5.5%; Score 156.5; DB 2; Length 1958; Best Local Similarity 21.0%; Pred. No. 0.1; Matches 126; Conservative 51; Mismatches 247; Indels 175; Gaps 21;	QY 13 GLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHRSVGEV-RGLG 71	Qy 72 VFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARAD 121 Db 1055 GEGRGGGPRRVGLAGRDAABAAVGRGVLGHGPERAPEPVVLGGGGGGGGGHERGSGVRSG 1114	GSISSALVASPPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMNAASSGTSRR : ;	182 SSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGAGSDQLGEPGAQQRQRGKH 238 184	239 RDRRDVPAQQRPAVHPAGPGPAD : 1 1222 RRRRRWDDEAGLLGPERGQAGRGLRGFPRG	277HOPRDGS	311 TTRAVAICLATLASRGVVAPOPAGDVA-RAAAGSPWPKSYARPVAVLRTGPPPRR	Qy 367 PSDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQIVASARGTVBIGSIAR 426	QY 427 LCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSIAATGPVDGTAWIVR 486 DD 1406GVGPAEALQDEGLLGAIVAAAHGHG-AHRVR 1435

Sat

27;

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C;Accession: T48814
R;Schulte, U.; Aign, V.; Hoheisel, J.; Brandt, P.; Fartmann, B.; Holland, R.; Nyakatura,
submitted to the Protein Sequence Database, April 2000
                                                                                                                                            A;Accession: T48814
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-1952 <SCH>
A;Cross-references: UNIPROT:09P6T1; EMBL:AL353822; GSPDB:GN00112; NCSP:15E6.220
A;Experimental source: cosmid contig 15E6; strain 74
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1475 SLTTGQMGVPAIAAASTSRPASGVYNP-PASSLA--PSTHK------SMPSAVPT 1520
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1521 TASGAVSSTVSSLAATPLPPSAPRYGPSNNATPTTPATAIPRAPLPAASSVSAPVTGOPS 1580
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          1581 FSAPASVPTPPTSAASQGAQPLSQPV----GPAPAISSSIGATPAASIPSSAPAALAPV 1635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1636 TYPVPQQASAAAARLPVTPAPAAHTIAQSVAQPVARPVTQSPVQSVAQHVTSSQASTTAA 1695
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1415 RPMSYVPTGPPGLTAPPTASSGASAGYARPANASTMPAPTSGQAAMTSAVPQSVPSPRPS 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ----SVPOATPOAVPRPSTSALTPTAOPGPVS 1803
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   71 GVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARADGSISSALVA 130
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 131 SPPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMNAASSGTSRRS----STLF 186
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -----RCRIPTTRAVAICLATLASRGVVAPQPAGDVA 337
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             338 RAAAAGSPWPVRSVA-----RPVAVLRTGPPPRRPSDTGSITQV----GRPAVLFAP 385
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           386 EQRCRRRADQRSCR-QIHPGGGRH--VQIVAS--ARGTVE--IGSIAR-LCGKDEAVAAL 437
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -- ODYIDRALRNIGPYLPAEVPALVG 470
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       471 SIAATGPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVA------GPVF 522
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      probable ABC transporter - Streptomyces coelicolor
C;Species: Streptomyces coelicolor
C;Species: OS-Nov-1999 #sequence_revision OS-Nov-1999 #text_change 09-Jul-2004
C;Accession: T35192
R;Seeger, K.; Harris, D.; Parkhill, J.; Barrell, B.G.; Rajandream, M.A.
                            05-May-2000 #sequence_revision 05-May-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRAAPISCHPIAP----STVNN-----TNAAM------CARPVPA-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    -----AVPGPQ----IGVHSGAAIGVTAPVSRSPPVTHGVVTAAPTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                236 GKHRDRRDVPA-----QQRPAVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSDRQASRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  11 PGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHRSVGEVRGL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Indels 176;
                                                                                                                                                                                                                                                                                                                                                                                                                  Length 1952;
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                                                                                                                                                                                                                                                                                                                                                                                                                  5.2%; Score 150; DB 2; Le
22.0%; Pred. No. 0.25;
tive 56; Mismatches 246;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VSGVPVESNVLSAGI -----
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                                                                                                                                                                                                                                                                                                                                                                                                                                           Best Local Similarity 22.0
Matches 135; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         438 HYVA----PVGEK--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RVNLGRAIPSRAA
                                                                                                                            A; Reference number: Z24541
                                                                                                                                                                                                                                                                                                                    A;Gene: NCSP:15E6.220
A;Map position: 2
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                                                                                                                                                                                                                                                                                                                                     ;Species: human herpesvirus 4, Epstein-Barr virus;
bate: 25-Feb-1985 #sequence_revision 25-Feb-1985 #text_change 09-Jul-2004
}Accession: A03742
ankier, A.T.; Deininger, P.L.; Farrell, P.J.; Barrell, B.G.
Boll. Med. 1, 21-45, 1983
Tittle: Sequence analysis of the 17,166 bp EcoRI fragment C of B95-8 Epstein-Barr virus;
Reference number: A93065; MUID:85035713; PMID:6092825
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        399-52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   T.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A/Accession: A03742
A/Accession: A03742
A/Molecule type: DNA
A/Molecule type: DNA
A/Residues: 1-660 < BAN>
A/Fesidues: 1-660 < BAN>
A/Fesidues: 1-600 < BAN>
A/Fesidues: 1-600 < BAN>
A/Fesidues: 1-600 < BAN>
A/Fesidues: 1-600 < BAN>
A/Fesidues: 10, 207-211, 1984
A/Fille: DNA sequence and expression of the B95-8 Epstein-Barr virus genome.
A/Feference number: A03794; MUID:84270667; PMID:6087149
A/Contents: annotation; protein coding region
C/Comment: The sequence contains four perfect repeats (residues 149-273, 274-398, C/Superfamily: human herpesvirus 4 BHLF1 protein
DAIHRCWPAGQSAAAIAALVARYPDAETVQLHPADVPFFVTLCKTLGKPVNFVPAIDLVV 750
                                                EIGSIARLCGKDEAVA----ALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSIAA 474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          257
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                                                                                           751 RAĞGAATRCGRPTTPATTPMRCASFRARVGSR---İTRMDEPVGELLDAFEQAAIDEVLG 807
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       -PGCP----RSARNPGCPRTWRRRSGAQRGHPP---PGAGQRPSGPTGGRPAAPGAPGTP 320
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPADRVGV-----DPGRHRRARGQHQPRDGSDRQASRTVSGVPVESNVLSAGIRCRT 309
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      -PPTRSGAAAQRTHRRPPGCPRSARNPGCPRTWRRRSGAQRGHPPP-----GAGQRPSG 430
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PTTRAVAICLATLASRGVVAPQPAGDVARAAAGSPWPVR--SVARPVAVLRTGP---PP 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   VEIGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSIAATGPV 478
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RLPQDLAAAQRCPAGPPPTRSGAAAQRTHRRPPGCPRSAR--NPGCPRTWRRRSGAQRGH 544
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PGTAWIVRQYPKILRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAAR 536
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------GPADPPAAR 603
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GAGDAAAVGVLGPQRQH-RARADGSISSALVASPPRAASSAPASIGLGPSGQHTSIHPRS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GPADPPAAARLPPERQEPRLPQDLAAAQRCPAGPPPTRSGAAA-----QRTHRRP--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        212 CTDGNDSGA------GSDQLGEPGAQQ--RQRGKHRDRRDVPAQQRPAVHPAGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAPGPGGGAAVPSGATPHPERGSGPADPPAAARLPPERQEPRLPQDLAAAQR----CPAGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RRPSDTGSITO--VGRPAVLF-APEQRCRRRAD--QRSCRQIHPGGGRHVQIVASA-RGT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPG----SASSGLRESSQSA--ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ; Score 151; DB 1; Length 660;
; Pred. No. 0.069;
25; Mismatches 188; Indels 134;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
T48814
hypothetical protein 15E6.220 [imported] - Neurospora crassa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ------VPSGATPHPERGS-
                                                                                                                                                                                                                                                                                        QQBE3
BHLF1 protein - human herpesvirus 4 (strain B95-8)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        5.3%;
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Matches 131;
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A;Cross-references: UNIPROT:P08392; GB:X14112; GB:D00317; GB:D00374; GB:S40593; NID:g194' C;Comment: This protein acts at the transcriptional regulatory level and is required thr
                                                                                                                                                                                                      288 DAIAPGGLGGTYAGSPIACAAALAVLKVFREEKLLERSQAVGER-LKAGLREIQAKHKVI 346
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      582 GFDGDLAAVPGLAGARPASPPRPEG----PAGPASPPPPHADAPRLRAWLRELRFVRDALV 638
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               156 PRSSNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTCTDG 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       216 NDSGAGSDQLGEPGAQQRQRGKHRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRHRRARG 275
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                276 QHQPRDGSDRQASRTVSGVPVESNVLSAGIRCRTPTTRAVAICLATLASRGVVAPQPAGD 335
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     825 AAPAAAA----LEAYCSPRAVAELTDHPLFPVP-----WRPALMFDPRALASIAARC 872
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            472 RAYAPILLARENAALTGAAGSPGAGA-DDEGVAAVAA-----AAPGERAVPAGYGAAGIL 524
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                68 RGLGVFWA-----GSDPER-----AGLR-----VEVLGAQCRRRDVVGA--- 101
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       525 AALGRUSAAPASPAGGDDPDAARHADADDDAGRRAQAGRVAVECLAA-C--RGILEALAE 581
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     752 -----GAD---APGSDA-----RAPLPAPAPPST-PPGPEPAP---AQPAAPRAAAA 791
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             792 QARPRPVA-----VSRRPAEGPDPLGGWR-RQP---------PGPSHT 824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      390 R--RRADQRSC-----RQIHPGGGRHVQIVASARGTVEIGSIARLCGKDEAVAALHYVA 441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    immēdiate-early protein IE175 - human herpesvirus 1
C;Species: human herpesvirus 1
C;Date: 31-Mar-1988 #sequence_revision 31-Mar-1988 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | | | : | : | : | : | 639 I.MRI.RGDI.RVAGGSEAAVAAVRAVSI.VAGAI.GPAI.PRDPRI.PSSAAAAAADI.I.FDNQSI.R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      336 VARAAAAGSPWPVRSVARPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPE-----QRC
                                                                                                                                                           7 DRAYPGGL--TYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHRSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     8 RAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHRSVGEV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           102 ---GDAAAV-GVLGPQRQHRARADGSISSALVASPP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Indels 216;
                                   Length 426;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 5.1%; Score 147; DB 1; Length 1298; Best Local Similarity 22.2%; Pred. No. 0.25; Matches 136; Conservative 56; Mismatches 205; Indels 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Map position: short repeat region (IR-s)
C;Superfamily: herpesvirus immediate-early protein IE175
C;Keywords: DNA binding; early protein; transcription regulation
                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                 GEVRGLG-----VFWAGSDPERAGLRVEVLGAQCRRDVV 99
                                   DB 2;
                                   Query Match 5.2%; Score 147.5; DE Best Local Similarity 33.7%; Pred. No. 0.07; Matches 34; Conservative 23; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    134 -----GLGPS--
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A; Molecule type: DNA
A; Residues: 1-1298 <MCG>
                                                                                                                                                                                                                                                                                       65
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R;Stover, C.K.; Pham, X.Q.; Brwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br addan, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim, J. Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
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A,Reference number: A82950; MUID:20437337; PMID:10984043
                                                                                                                                                                                     EMBL: AL022374; PIDN: CAA18516.1; GSPDB: GN00070; SCOEL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GB:AE004465; GB:AE004091; NID:g9946107; PIDN:AAG0365
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ISSALVASPPRAASSAPASIGL------GPSGQHTSIHPRSSNGSPTVHISQSMNA 173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    182 LFS--TADPKEAARSADHVVTLERGRVVADQEAAEFSRTRLRPRVAVRSPHAARLAALVT 239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                240 KEARAARRSVEVVR-------EGGNRLAVYGSTCADIGEAAFRHGILVHQLADEV 287
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GE--PGAQQRQRQRGKHRDRRDVPAQQRPAV-----HPAGPG---PADRVGVDPGRHRR 272
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        288 GDMGPGAGEIPAARQQERREADGERAPGTGTLSAGRPGPETPGVLLPSPATEGEPLEDGR 347
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     322 LASRGVVAPQPAGDVARAA--AAGSPWPVRSVARPVAVLRTGPPPRRPSDTGSITQVGRP 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        397 PAS-GPSAPAP-GPPAPAAGPSAPAPGGPSA---PAPGPSEPASGPSAPAPG- 450
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              499
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GVFWA-GSDP-----ERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARADGS 123
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GLACALVPDPHTLVFDDPAG------ALSAHDAR--GLHGALRAHAAQGGTV 181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         273 ARGOHOPRDG-----SDRQASRTVSGVPVESNVLSAGIRCRIPITRAVAICLAT 321
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       348 GAG-HGDGDGPASVAVPNRTPGPRQAPAPVSGHGPEA------APSPSAPAPGPSE 396
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             380 AVLFAPEORCRRRADORSCROIHPGGGRHVQIVASARGTVEIGSIARLCGKDEAVAALHY 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        440 V--APVGEKQDYIDRALRNIGPYLPAEVPALVGSIAATGPVPGTAWIVRQYPKLLRA 494
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGAG-----SDQL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          451 SALDAEPLR-----TPRPFRALVPGSARTREATATLPPPISVRS-----APSPLRPLRY
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                                                                                                                                                                                                                                                                                                                                           Query Match 5.2%; Score 148.5; DB 2; Length 744; Best Local Similarity 24.2%; Pred. No. 0.11; Matches 130; Conservative 53; Mismatches 215; Indels 139;
                      A;Reference number: 221571
A;Accession: T35192
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Residues: 1-744 <SEE>
A;Cross-references: UNIPROT:069995; EMBL:AL022374; IA;Reperimental source: strain A3(2)
C;Genetics:
A;Gene: SCOEDB:SC588.08
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A;Gene: gabT; PA0266
C;Superfamily: ornithine-oxo-acid aminotransferase
submitted to the EMBL Data Library, April 1998
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A;Molecule type: DNA
A;Rosaiduse: 1-426 <STO>
A;Crosa-references: UNIPROT: 0916W4;
A;Experimental source: strain PAO1
C;Genetics:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Accession: B83611
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                                                  micrococcue
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-!- SIMILARITY: Belongs to the class-III pyridoxal-phosphate-dependent aminotransferase family.
EMBL; AP005039; BAC72263.1; -.
HSSP; P16932; 2DKB.
GO; GO:0030170; F:pyridoxal phosphate binding; IEA.
GO; GO:0008483; F:transaminase activity; IEA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Kkeda H., Ishikawa J., Hanamoto A., Shinose M., Kikuchi H., Shiba T.,
Sakaki Y., Hattori M., Omura S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Complete genome sequence and comparative analysis of the industrial microorganism Streptomyces avermitilis."; Nat. Biotechnol. 21:526-531(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        STRAIN=MA-4680 / ATCC 31267 / NCIMB 12804 / NRRL 8165;
MEDLINE=21477403; PubMed=11572948; DOI=10.1073/pnas.211433198;
Omura S., Ikeda H., Ishikawa J., Hanamoco A., Takahashi C.,
Shinose M., Takahashi Y., Horikawa H., Nakaawa H., Osonoe T.,
Kikuchi H., Shiba T., Sakaki Y., Hattori M.;
"Genome sequence of an industrial microorganism Streptomyces avermitilis: deducing the ability of producing secondary
           Q8j163
Q63vy 6
Q69340
Q8vpm9
Q8vpm9
Q911k9
Q911k9
Q6vx 6
Q9dwh8
Q9vy 0k3
Q9V 0k3
Q9V 0k3
                                                                                                                                                                                                                                                                                                                                           Streptomyces avermitilis.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Streptomycineae; Streptomycetaceae; Streptomyces.
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15.9%; Pred. No. 2.3e-07;
tve 20; Mismatches 35; Indele
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PROSTITE; PS00600; AA TRANSPER CLASS 3; 1.
Complete protecome; Pyridoxal phosphate.
SEQUENCE 451 AA; 48232 MW; 16BDCAS9B276F9CA CRC64;
                                                                                                                                                                                                                                                                                           Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                          451 AA.
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                                                                                                                                                                                                                                                                                 Created)
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           Q8JL63
Q633VY6
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Q8VPM9
Q9APD6
Q91LK9
Q91LK9
Q9DWH8
Q9COXG6
Q9DWH8
                                                                                                                                                                                                                                                                                                                                                                                                                 STRAIN=MA-4680;
MEDLINE=22608306; PubMed=12692562;
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                                                                                                                                                                                                                                                                             01-JUN-2003 (TrEMBLrel. 24, 01-JUN-2003 (TrEMBLrel. 24, 01-MAR-2004 (TrEMBLrel. 26,
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Conservative 2
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            1454
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1937
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Matches 72; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
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score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.
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        GenCore version 5.1.6
(c) 1993 - 2005 Compugen Ltd
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Maximum Match 100%
Listing first 45 summaries
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Q8FN12
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Les 109; Conservative
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01-MAY-2000 (
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 1 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAAR 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 417:141-147 (2002).
Nature 417:141-147 (2002).
-!- SIMILARITY: Belongs to the class-III pyridoxal-phosphate-dependent
aminotransferase family.
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PROSITE; PS00600; AA_TRAÑSFER_CLASS_3; 1.
Aminotransferase; Complete proteome; Pyridoxal phosphate; Transferase.
SEQUENCE 451 AA; 48413 MW; 43CF2DD9AFA7E8AB CRC64;
                                                                                                                                                                                                                                                                                                                                       STRAIN=A3(2) / Mids;

MEDLINE-21996410; PubMed=12000953; DOI=10.1038/417141a;

Bentley S.D., Chater K.P., Cerdeno-Tarraga A.-M., Challis G.L.,

Thomson N.R., James K.D., Harris D.E., Quail M.A., Kieser H.,

Harper D., Bateman A., Brown S., Chandra G., Chen C.W., Collins M.,

Cronin A., Fraser A., Goble A., Hidalgo J., Hornsby T., Howarth S.,

Rabbinowitsch E., Rajandream M.A., Rutherford K.M., Rutter S.,

Seeger K., Saunders D., Sharp S., Squares R., Squares S., Taylor K.,

Marren T., Wietzorrek A., Woodward J.R., Barrell B.G., Parkhill J.,

Hopwood D.A.;
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Streptomycineae; Streptomycetaceae; Streptomyces.
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PIR; T35390; T35390.
HSSP; P16912; 2DKB.
GO:0030170; F:pyridoxal phosphate binding; IEA.
GO; GO:0008483; F:transaminase activity; IEA.
GO; GO:0016740; F:transferase activity; IEA.
                                            114 RQHRARADG----SISSALVASPPRAASSAPASIGL 145
                                                               ---AAKANGLWPFINMNRTHVV-PPCNVTEAEAKEGL 436
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Q8FN12,
01-MAR-2003 (TrEMBLrel. 23, L
01-MAR-2003 (TrEMBLrel. 23, L
01-MAR-2004 (TrEMBLrel. 26, L
Putative aminotransferase.
OrderedLocusNames=CE2336;
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ORFNames=SC66T3.33;
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Streptomyces coelicolor.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         -!- SIMILARITY: Belongs to the class-III pyridoxal-phosphate-dependent aminotransferase family.
EMBL: AP005222; BAC19146.1; --
HSSP; P12995; 1QJ3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR005814; Aminotrans 3.
Pfam; PF00202; Aminotran 3; 1.
PROSITE; PS00600; AA_TRANSFER CLASS_3; UNKNOWN 1.
Aminotransferase; Complete proteome; Pyridoxal phosphate; Transferase.
SEQUENCE 469 AA; 50166 MW; APFA3E4482C29F79 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  44 ÓVHGP------QRPSGPIGHPARAPA
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Zong J.-C., Ryan J., Ling P.D., Loeb D.D., Pagano J.S., Hayward S.D.,
Hayward G.S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     13; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    95; Gaps
                                                                                                                                                                                                                                                                                                                                        "Comparative complete genome sequence analysis of the amino acid replacements responsible for the thermostability of Corynebacterium
                                                                                                                                                                           STRAIN=YS-314;
MEDLINE=22723752; PubMed=12840036; DOI=10.1101/gr.1285603;
Nishio Y., Nakamura Y., Kawarabayasi Y., Usuda Y., Kimura E.,
Sugimoto S., Matsui K., Yamagishi A., Kikuchi H., Ikeo K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      469;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Length 608;
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynebacterineae; Corynebacteriaceae; Corynebacterium.
NCBI_TaxID=152794;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         EMBL, AF200364; AAF23950.1; -.
SEQUENCE 608 AA; 60458 MW; 4BF82ACB0A029627 CRC64;
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Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Gammaherpesvirinae; Lymphocryptovirus.
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           380 YAAVGDVRGIGFFWALEFVSDAQAKTPAGADAMAAG 415
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               6.5%; Score 185.5; DB 2;
28.5%; Pred. No. 0.046;
tive 29; Mismatches 150;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HRSVGEVRGLGVFW------AGSDPERAG 83
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GO: GO:0030170; F:pyridoxal phosphate binding; GO: GO:0008483; F:transaminase activity; IEA. GO: GO:0016740; F:transferase activity; IEA.
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290 TVSGVPVESNVLSAGIR-----CRTPTTRAVAICLATLASRGVVAPOPAGDVARAAAAG 343
                                                                                                                                                                                                                                                                                                                                                                            344 SPWPVRSVARPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHP 403
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          -----GP--PA 1014
                                                                                                                                                                                                                                                                                                                               936 ALGPMPPEGPHRRGGFRRVPHGDCHTP-------PPGDSARAAYC- 973
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            141 YGROPQOPSCGQAAVGAHREDGEVNGSDAHDRELSEOY-----LCSRHTTSCRTSPWS 193
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            -VGEVRGLGVFWAGSDP-----ERAGLRVEVLGAQ-CRRRDVVGAGDAAAVGVLGPQ 113
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           194 HVNRPPALG----GSSNSHHSDDGYDRAAASELHSQQRCRRRHRSLRYTQGSDV---- 243
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         114 ROHRAR-ADGSISSALVASPPRAASSAPA-SIGLGPSGQHTSIHPRSSNGSPTVHISQSM 171
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        244 --HRLHGADAPASSSLESTAPVDTSAAAATAAGAAAKGNERDDAPTNHSTGSQHHRHQSP 301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       172 NA-ASSGT----SRRSSTLFRWQSP-----C--MIPGSASSG----LRESSQS 208
SIHPRSSNGSPTV--HISQSMNAASSGTSRRSSTLFRWQS----PCMIPGS----ASSGL
                                                                                                                                       823 HOŚŚGGPTTCSRATQTOARPSGQKARSPPAASQAILGQEMPVSSQGGGGPAPYASPNDRP
                                                                                                                                                                                        ---RORGKHRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSDRQASR
                                                                                                                                                                                                                                    883 VNGRPRGKSGKRRSEPLE--PA---AGELPGSRGGYDPVAPVESPPAPKRRVGT--QAPR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           404 GGGRHVQIVASARGTVEIGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPA
                                                                                                                                                                                                                                                                                                                                                                                                                          ---PPELVAELI-------DHPLFPEAWRPALTFDPO-------
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE-22738071; PubMed=12853638; DOI=10.1093/nar/gkg469; Morthey E.A., Martinez-Calvillo S., Schnaufer A., Aggarwal G., Worthey E.A., Martinez-Calvillo S., Schnaufer A., Aggarwal G., Cawthra J., Fazelinia G., Fong C., Fu G., Hassebrock M., Hixson G., Ivons A.C., Kiser P., Marsolini F., Rickell E., Salavati R., Sisk E., Sunkin S.M., Stuart K.D., Myler P.J.; Exickell E., Salavati R., Sisk E., Sunkin S.M., Stuart K.D., Myler P.J.; and an and or chromosome 3 contains two long convergent polycistronic gene clusters separated by a tRNA gene."; Nucleic Acida Res. 31:4201-4210(2003).

BMBL, AC125735; AAM68997.1; -. SEQUENCE 2087 AA; 213463 MW; 5941B10021775FIB CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16 YSGHPLATACAVATINAMEDEGWV----ANAARIGEQVLGPGLRDLAARHRS-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match 6.4%; Score 182; DB 2; Length 2087;
Best Local Similarity 22.9%; Pred. No. 0.24;
Matches 152; Conservative 65; Mismatches 244; Indels 204; Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Leishmania major.
Leishmania major.
Eukaryota; Buglenozoa; Kinetoplastida; Trypanosomatidae; Leishmania.
NCBI_TaxID=5664;
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Last annotation update)
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                                                                                           RESSQSASTCTDGNDSGA---GSDQLGEPGAQQ-----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      464 EVPALVGSIAATGPVPGTAWIVRQYPKLLRAKANW 498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRT; 2087 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -----ALATIAARCN-----
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23,
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01-OCT-2002 (TrEMBLrel.
01-MAR-2003 (TrEMBLrel.
Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORFNames=Chr3 0240;
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Q8MXL2;
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                                                 ----GPRSPRTERRRGSAQRGHPP---PG-----AGQRPSGPTGGHPAAPGAPGPRS 173
                                                                                                                                                                                                                                       227 GHPPPGAGQRPSGPTGGHPAAPG--APGPRSPRTERRRG-----SAQRGHPPPGAGQR 277
                 SQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGAGSDQLGE 227
                                                                                                                                                        174 PRTERRRGSAQRGHPPPGAGQRPSGPTGGHPAAPGA-----PGPRSPRTERRRGSAQR 226
                                                                                                                                                                                                         --PRDGSDRQASRTVSGVPVESNVLSAGIRC-RTPTTRAVAICLATLASRGVVAP----Q 331
                                                                                                                                                                                                                                                                                                    PAGDV-ARAAAAGSPWP--VRSVARPVAVLRTGPPP---RRPS-DTGSITQVGRPAVLFA 384
                                                                                                                                                                                                                                                                                                                                                PSGPTGGHPAAPGAPGPRSPRTERRRGSAQRGHPPPGAGQRPSGPTG-----GHPAAPGA 332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       :|| |||
542 YADMAYPRDDAGRQDSHSAAGVTASYPAQAQA-----ASQQPDPPATSARVREEYTRV 594
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                                                                                                            PGAQQRQRGKHRDRRDVPAQQRPA----VHPAGPGPADRVGVDPG----RHRRARGQHQ-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     49 ------RGLGVFWAGSDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  655 SEIPSPACPPEALCSNPAGLET----AACALYELRDLVERARLLGDSDPIHRLGPDELRL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 FADRAYP-----GGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQ----
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Gaps
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            h 6.4%; Score 182; DB 2; Length 1442; Similarity 21.4%; Pred. No. 0.17; 36; Conservative 47; Mismatches 170; Indels 282;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PIR; T42607; T42607.
GO; GO:0042025; C:host cell nucleus; IEA.
GO; GO:0016563; F:transcriptional activator activity; IEA.
GO; GO:0045941; P:positive regulation of transcription; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             InterPro; IPR005205; Herpes ICP4 C.
InterPro; IPR005206; Herpes ICP4 N.
Pfam; PF03585; Herpes ICP4 C; 1.
Pfam; PF03584; Herpes ICP4 C; 1.
SEQUENCE 1442 AA; T51749 WW; CF50DB5372E47DC7 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Equid herpesvirus 4.
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirinae; Varicellovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Last sequence update)
Last annotation update)
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Telford E.A., Watson M.S., Perry J., Cullinar
"The DNA sequence of equine herpesvirus-4.";
J. Gen. Virol. 79:1197-1203(1998).
EMBL; AF030027; AAC59583.1; -.
EMBL; AF030027; AAC59589.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1442 AA
                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
                                                                                                                                                                                                                                                                                                                                                                                                  385 PEQRCRRRADQR-SCRQIHPGGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity Matches 136; Conservative
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01-JAN-1998 (TrEMBLrel.
25-OCT-2004 (TrEMBLrel.
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                 168
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Best Local &
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61 HRSVGEVRGLGVFWA
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                                                                                                                01-JUN-2003
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                                                                                         Q842J4
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Q842J4
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                                                                                      261 DRVGVDPGRHRRARGQHQPRDGSDRQASRT-VSG----VPVESNVLSAGIRCRTPTT-RA 314
                                                                                                      315 VAICLATLASRGVVAPQPAGDVARAAAAGSPWPV----RSVARPVAVLRTGPPPRRPSDT 370
                                                                                                                                                                                                                                            RGTVEIGSIARL-----CGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPAL 468
                                                                                                                                                                                                                                                                     557 REGRESGSSSRLAATALRSAGSTVTSSATH----IGDELDALYHELST--PHPPASVPAS 610
                                                                                                                                                                                                                                                                                                                      611 SESATASGAQATGTPPRKVQFPV-GTDNATAINELFAQAVQNTMETTRMKENL--TVLVR 667
                                                                                                                                                                                                                                                                                                                                                               1 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGWVANAARIGEQVLGPGLRDLAAR 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Complete genomic sequence of Corynebacterium glutamicum ATCC 13032.";
Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AP005281; BAB99834.1; -.
HSSP; P12995; 1QJ3.
                                                             362 ASGSTNEPPIISHFGSSSGGGG-----GGRQRQ------GSLVTVVSPTHTSQA
                                                                                                                                                                461 SARSLSEQQQQQPPTQPSTE-----EWPSCISGHLAERADEITHDGPDAAPP---
                                                                                                                                                                                           371 GSITQVGRPAVLFAPEQRCRRRADQRSCRQI-------HPGGGRHVQIV---ASA
                                                                                                                                                                                                                                                                                              VGSIAATG------PVPGT-----AMIVRQYPKLLRAKANWEDTWTFP
                                                                                                                                                                                                                                                                                                                                                SIEEKHRPR-----GSVAGPVFR-----VNLGR-----AIPSRAARAEIHGSH
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Bacteria, Actinobacteria, Actinobacteridae, Actinomycetales,
Corynebacterineae, Corynebacteriaceae, Corynebacterium.
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STRAIN-ATCC 13032 / DSM 20300 / NCIB 10025 Nakagawa,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         438 AA.
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45.3%; Pred. No. 0.06
:ive 14; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (TrEMBLrel. 22,
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nes 34; Conserv
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315 IRDTFGSEAYSGGLTYSGHPLAVAPAKAALEIYAEGEIIPRVARLGAELIEPRLKELAEE 374
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
STRAIN=AUCC 13032;
MEDLINE=22830027; PubMed=12948641; DOI=10.1016/S0168-1656(03)00161-5;
MEDLINE=22830027; PubMed=12948641; C., Publer A., Kalinowski J.;
"Genome-based analysis of biosynthetic aminotransferase genes of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRAIN=DSM 20300;
MEDLINE=22830012; PubMed=12948626; DOI=10.1016/S0168-1656(03)00154-8;
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Burkovski A., Dusch N., Eggeling L., Eikmanns B.J., Gaigalat L.,
Goesmann A., Hartmann M., Huthmacher K., Kramer R., Linke B.,
McHardy A.C., Meyer F., Mockel B., Pfefferle W., Puhler A., Rey
Buckert C., Rupp O., Sahm H., Wendisch V.F., Wiegrabe I., Tauch A.;
"The complete Corynebacterium glutamicum ATCC 13032 genome sequence
and its impact on the production of L-aspartate-derived amino acids
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Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynebacterineae; Corynebacteriaceae; Corynebacterium.
NCBI_TaxID=196627;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
Corynebacterineae; Corynebacteriaceae; Corynebacterium.
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25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Aminotransferase class-III, pyridoxal-phosphate dependent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FEA5E064E66195AE CRC64;
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GO; GO:0008483; F:transaminase activity; IEA.
GO; GO:0016740; F:transferase activity; IEA.
InterPro; IPR005814; Aminotrans 3.
PROSTITE; PS00600; AA TRANSFER CLASS 3; UNKNOWN 1.
Aminotransferase; Transferase.
                                                                                                                                                                                                                                                   456 AA.
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25-0CT-2004 (TrEMBLrel. 28, Last seq
25-0CT-2004 (TrEMBLrel. 28, Last ann
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J. Biotechnol. 104:229-240(2003).
EMBL; AY218124; AAO92315.1;
HSSP; P12995; 10J3.
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357 NVAIADVRGIGFFWA 371
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375 NVAIADVRGIGFFWA 389
75
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                                                                                                                                                                                                                                                   PRELIMINARY;
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378 868 429

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963 ASAP-----LRRRVAWMSQIADPEDVRVVVLYDPLPGEALAAPPGEDERRR 1008
                                                       -----ERARLSGAAPAALRAEAAALEAAALAARTVAPLARY-----STRGAAARAP 612
                                                                                                                                                               613 AWTLARALFSPPAEVPARLAAALAALKAGA------PGAAARVEVEDMRAGAPR 660
                                                                                                                                                                                                                                                                                                                                                                                                                                      274 R----GOHQ---PRDGSDRQASRTVSGVPVESNVLSAGIRCRTPTTRAVAICLATLASRG 326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                869 PA-----RREPPLPARVLGPMPPGGPAADGGFRRVPPGEYHTPAPSAAALAAYC- 917
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  109 VLGPQRQHRARADGSISSALVASPPRAASSAP-ASIGLGPSGQHTSIHPRSSNG----- 161
                                                                                                                                                                                                                                                                       661 ADLEEDGEDEGGDGGDEEAGASETSEGEEEEREEERDEEEAAAAGASDGDGDGDGDGD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        379 PAVLFAPEQRCRRRADQRSCRQIHP-----GGGRHVQIVASARGTVEIGSIARLCG
                                                                                                               ----SPIVHISQSMNAASSGTSRRSSTLFRWOSPCMIPGSAS----SGLRESSOS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   821 AARPLP-----AAGGSPSGAGLEAR-----RDGPPRRKRKSAGARGPAPAKSRRAAGS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          STRAIN=WA-4680;
MEDLINE=21477403; PubMed=11572948; DOI=10.1073/pnas.211433198;
Omura S., Ikeda H., Ishikawa J., Hanamoto A., Takahashi C.,
Shinose M., Takahashi Y., Horikawa H., Nakazawa H., Osonoe T.,
Kikuchi H., Shiba T., Sakaki Y., Hattori M.;
"Genome sequence of an industrial microorganism Streptomyces avermitilis: deducing the ability of producing secondary
metabolites.";
Proc. Natl. Acad. Sci. U.S.A. 98:12215-12220(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Streptomyces avermitilis.
Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
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Last annotation update)
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MEDLINE=22608306; PubMed=12692562;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hypothetical protein.
OrderedLocusNames=SAV5099;
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                                                          999
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X MDLINE=22850801; PubMed=12970418;
X MDLINE=22850801; PubMed=12970418;
X MDLINE=22850801; PubMed=12970418;
X MDI = 1,128/VII.77.19.10339-10347.2003;
A Rutish G.F. Mrck D.L.;
A Golome of bovine herpesvirus 5.";
J. Virol. 77.10339-10347(2003).
EMBL; AY261359; AAR86167.1;
EMBL; AY261359; AR86167.1;
CG) GO:0016551; F:transcriptional activator activity; IEA.
GO; GO:0016541; P:positive regulation of transcription; IEA.
R GO; GO:0045256; Herpes_ICP4_C.
R InterPro; IRR05205; Herpes_ICP4_C.
R InterPro; IRR05205; Herpes_ICP4_C.
R InterPro; IRR05205; Herpes_ICP4_C.
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                                                                                                                                                                                                                                                                                                                                                                              ; DB 2; Leus
. 0.067;
. 27; Indels
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Pfam; PP03584; Herpes ICP4 N; 1.
SEQUENCE 1408 AA; 141784 MW; 90508869D9CED687 CRC64;
                                                                                                                                   the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                 InterPro; IPR005814; Aminotrang 3.
PROSITE; PS00600; AA TRANSFER CLASS_3; UNKNOWN_1.
Aminotransferase; Transferase.
SEQUENCE 456 AA; 49372 MW; FEASE064E66195AE CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bovine herpesvirus 5.
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphaherpesvirinae; Varicellovirus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
BICP4 positive and negative gene regulator.
ORFNames=BHV5-61, BHV5-72;
                                                                                                    Kalinowski J.;
Submitted (JAN-2004) to the EMBL/GenBank/DDBJ datab
EMBL; BX927155; CAF21103.1; -
GO; GO:0030170; F:pyridoxal phosphate binding; IEA.
GO; GO:0008483; F:transaminase activity; IEA.
GO; GO:0016740; F:transferase activity; IEA.
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45.3%; Pred. No. 0.06
:ive 14; Mismatches
  Biotechnol. 104:5-25(2003)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         61 HRSVGEVRGLGVFWA 75
                                                                                                                                                                                                                                                                                                                                                                                                                                                             34; Conservative
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Matches 148; Conservative
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                                                     SEQUENCE FROM N.A.
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                                                                              STRAIN=DSM 20300;
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                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
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MEDLINE=89315207; PubMed=2546124;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                              23;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                316 AQEHGPVEPRFPAPVVPGQGGAPRIESRRTPESGGTGPDGR-------PVAGPGGASA 366
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GEAHGRGPGEGHGRGPGEAHGRGRRDAPDRGPGDVPGRGSGHDSGGVPGQGPGDGHPLGS 485
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ----VESNVLSAGIRCRTPTTRAVAICLATLASRGVVAPQ 331
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         486 AEGPDRGPREGYGARPGEVPGPDDLRGGIPGAGPRKGTPL-------RGTDVPQ 532
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ---AAAGSPWPVRSVARPV 355
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AVLRT--GPPPRRPSDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQIVA 413
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ------PDGSGLLPAVP 633
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         44 RIGEQV--LGP--GLRDLAARHRSVGEVR-----GLGVFWAGSDPERAGLRVEV---L 89
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              256 WAVPHARGGGGAGRGAPSGGASAAASGDGRPSGETHHAFGASAWGAAGGAPSAPAGGAPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  --QHTSIHPR-----SSNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GLRESSQSAST -- CTDGNDSGA-GSDQLGEPGAQQRQRGKHDRRDVPAQQRPAV----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      533 GARRRGGFSAWARRLTGGRGEPAGDGPQAYDEDTARVPEPAVTGAQAPEKWP-----DPA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 -HPAGPGPADRVGVDP----GRHRRARGQHQPRDGSDRQASRTVSGVP------
                                                                                                                                                                                                                                                                                                                                                                                                                                                            162;
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Pseudorabies virus (strain Indiana-Funkhauser / Becker) (PRV).
Viruses; dsDNA viruses, no RNA stage; Herpesviridae;
Alphalaerpesvirinae; Varicellovirus.
                                                                                                                                                                                                                                                                                                                                                                                                            DB 2; Length 1422; 0.23;
                                                                                                                                                                        Interror, 15.000 19.000 FHA; 1. Feam; PF00498; FHA; 1. Feam; PF00189; FHA; 1. SMBT; SM00382; AAA; 1. SMRT; SM00240; FHA; 1. FARST; FS00006; FHA DOWAIN; 1. FROSITE; PS50901; FTSK; 1. ATP-binding; Complete proteome; Hypothetical protein.
                                                                                                                                                                                                                                                                                                                                                                                                                              24.9%; Pred. No. 0.23;
tive 27; Mismatches 198; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALLLTALGPGPRL-WERGP----GHPEALTVRLGTADRTA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  634 VTAGLREAGALGLAGPRARLAGLARAVVAOLAALH 668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             01-077-1989 (Rel. 12, Created)
01-APR-1990 (Rel. 14, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT; 1461 AA
                    EMBL, AP005041, BAC72811.1; GO, GO:0005524; FATP binding; IEA.
GO:00000166; F:nucleotide binding; IEA.
InterPro; IPR003593; AAA_ATPase.
                                                                                                                                                                                                                                                                                                                                                                                                              6.3%; Score 179;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             --PAGDVARA-
  21:526-531 (2003).
                                                                                                                                       InterPro; IPR002543; FtsK SpollIE.
InterPro; IPR008984; SMAD_FHA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                   Local Similarity 24.9
les 128; Conservative
                                                                                                              InterPro; IPR000253; FHA
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SEQUENCE FROM N.A
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ID IE18_PRV
ID IE18_PRV
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation-the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modifised and this statement is not removed. Usage by and for statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@ib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          62
                                                                                                                                                                         Cheung A.K.;
Submitted (NOV-1989) to the EMBL/GenBank/DDBJ databases.
-!- FUNCTION: This IE protein is a multifunctional protein capable of
-!- FUNCTION: This IE protein is a multifunctional protein capable of
migrating to the nucleus, binding to DNA, trans-activating other
viral genes, and autoregulating its own synthesis.
-!- SUBCELIUIAR LOCATION: Nucleus of infected cells.
-!- FIM: A long stretch of serine residues may be a major site of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            21 LATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHR-SVGEVRGLGVFWAGSDP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     80 ERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGP-----OROHRARADGSI-----
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                                                                                                                                                                                                                                                                                                                                                                                                    phosphorylation. SIMILARITY: Belongs to the herpesviruses ICP4/IE140/IE180 family.
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Phosphorylation;
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W; 7F31E7ABE403B208 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL, X15120, CAA33214.1; -..
PIR, S04713; BDBEIF.
InterPro; IPR005205; Herpes_ICP4_C.
Pfam; PR05206; Herpes_ICP4_N.
Pfam; PF03585; Herpes_ICP4_N.
Pfam; PF03585; Herpes_ICP4_C; 1.
Pfam; PF03584; Herpes_ICP4_N, 1.
Pfam; PF03584; Herpes_ICP4_N, 1.
Pfams_binding; Barly protein; Nuclear protein; Pirans_acting factor; Transcription regulation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                6.2%; Score 176.5; D
21.8%; Pred. No. 0.33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Poly-Ser
                                                                                           Nucleic Acids Res. 17:4637-4646(1989)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        149833 MW;
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Best Local Similarity 21.8°
Matches 161, Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          405
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     1461 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DAMEAEAAVL
                                                              pseudorabies virus
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (see http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                              3086 FRSPSEPANARAQGAAPPAAAVANGGGRELKQQPAVQAVSSTTSSIRSNS----SGSGN 3141
                                                          390 RRR----ADORSCROIHP-----GGGRH-----VQIVASARGTVEIGSIARLCGKDE 432
                                                                                                                                                                        ---RALRYMSVPKPGAQPSTASNAAPAAAEAEPAAPPSRHTAW 3184
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EMBO J. 20:1765-1773(2001).

-I- FUNCTION: Required for trans-splicing of exons 1 and 2 of the chloroplast encoded psaA mRNA (a group II intron). May be required for stability of the chloroplast RNA-protein complex in which it is found.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RNA to exon 1 and the tscA RNA.
SUBCELLULAR LOCATION: Chloroplast stroma.
DOMAIN: The N-terminal 453 amino acids are dispensable, while the C-terminal 630 amino acids are required for function.
                                                                                                                                      433 AVAALHYVAPVGEKODYIDRALRNIGPYLPAEVPALVGSIA-----ATGPVPGTAW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBUNIT: Part of a 1700 kDa complex that includes the precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=21181833; PubMed=11285239; DOI=10.1093/emboj/20.7.1765; Rivier C., Goldschmidt-Clermont M., Rochaix J.-D.; "Identification of an RNA-protein complex involved in chloroplast group II intron trans-splicing in Chlamydomonas reinhardtii.";
                                                                                                                                                                                                                                                                                                                                                                                                        Chlamydomonas reinhardtii.
Eukaryota, Viridiplantae, Chlorophyta, Chlorophyceae, Volvocales,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 1783;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 mRNA splicing; Transit peptide.
Chloroplast (Potential).
Trans-splicing factor Raa3.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   40F6206BA6EBDCDB CRC64;
                                                                                                                                                                                                                                                                                                        28-FEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Trans-splicing factor Raa3, chloroplast precursor.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DB 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         6.1%; Score 173.5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        [1]
SEQUENCE FROM N.A., AND CHARACTERIZATION.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ala-rich
Ser-rich
Ala-rich
Ala-rich
Gln-rich
Arg-rich
Poly-bro
Poly-bro
Poly-Ala
Poly-Ala
Poly-Ala
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chloroplast; mRNA processing;
TRANSIT 1 40
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                                                                                                                                                                                                                                                                        STANDARD;
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1430
1506
1722
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1783
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1678
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                                                                                                                                                                          3142 PLA
                                                                                                                                                                                                                                                                    RAA3 CHLRE
Q9FEC4;
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                                                                                                                                                                                                                                              RAA3_CHLRE
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                                                                                                                                                                                                                                  RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2850 VLERPDVAASLAAAVA-----2ASGAPPQGTVPLPPITEATGPN--GLGSS---- 2892
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 2992 QDLFG------LELDTTVLTSKMTADAGAASAPPNLPSPMMR------LGSRLGLVR 3035
                                                                                                                  548
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SSGNGRESGSGSTSGGAPAAMPRPR----VGGAPSNASAAAAAAAAAAA----AQPAAH 2991
                                        495
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TCTDGNDSGAGSDQLGEPGAQQRQRGKHRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRH 270
  -----VAVLRTGPPPRRPSDTGSITQVGRP 379
                                                                            423
                                                                                                                                                    ----RALRNIGPYLPAE 464
                                                                                                                                                                                                                                                                      661
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           93 CRRRDVVGAGDAAAVGVLGPQRQHRARADGSISSALVASPPRAASSAPASIGLGPSGQHT 152
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SIHPRSSNGSPTVHISQSMNAASSGTSRRSSTLFRWQS--PCMIPGSASSGLRESSQSAS 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RRARGQHQPRDGSDRQASRTVSGVPVESNVLSAGIRCRTPTTRAVAICLATLASR-GVVA 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       330 PQPAGDVARAAAGSPWPVRSVARPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPEQRC 389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               33 MEDEGMVANAARIGEQVLGPGLRDLAARHRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQ 92
                        WPGSDPPADGRVRYGGAGDSREGLWDEDDVRQ----RAARY----RAAAGPVPVFIPEMGD
                                                                                                                                                                                                                                                          380 AVLFAPEQRCRRRA-----EIGS
                                                                                                                                                                            : : | | | | | | | | SRK---QHEALVRLIYSGAAGEAMSWLQNPRMQAPDQRFNQFCQRRVHAPHGHGSFITGS
                                                                                                                                                                                                                              V----PALVGSIAATGPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ferris P.J., Waffenschmidt S., Umen J.G., Ishida K., Kubo T., Lau J., Goodenough U.W.;
Submitted (OCT-2003) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota, Viridiplantae, Chlorophyta, Chlorophyceae, Volvocales,
Chlamydomonadaceae, Chlamydomonas.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; Pred. No. 1.2; 49; Mismatches 190; Indels 124;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 3889;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; AY450929; AAS07042.1; --
GO; GO:0005199; F:structural constituent of cell wall; IEA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TIGRFAMS; TIGR01414; autotrans barl; 1.
SEQUENCE 3889 AA; 389223 MW; 4DESB44D5507214A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Last sequence update)
Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                                                              PRT; 3889 AA
                                                                                                                                                    424 IARLCGKDEAVAALHYVAPVGEKQDYID---
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6.1%; Score 174;
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InterPro; IPR003882; Pistil_extensin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
334 GDVARA---AAAGSPWPVRSVARP-
                                                                                                                                                                                                                                                                                                          521 VFRVNLGRAIPSRAARA 537
                                                                                                                                                                                                                                                                                                                                                -----GRAADPRAGEA 672
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chlamydomonas reinhardtii.
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les 116; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                              PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      05-JUL-2004 (TrEMB)
05-JUL-2004 (TrEMB)
Minus agglutinin.
Name=SAD1;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=CC-621;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    05-JUL-2004
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                                                                                                518
                                                                                                                                                               RGLGVF-----AGDAAAGSDPERAGLRVEVLGAQC--RRRDVVG----AGDAAAVG 108
                                                                                                                                                                                                                                                          ---ROHRARA-DGSIS-----SALVASPPRAASSAP 140
                                                                                                                                                                                                                                                                                                                                                      ----SGQHTSIH 155
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ----PC 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ------PAAEQPH 465
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGIRCRIPTIRAVAICLATLASRGVVAPQPAGDVARAAAAGSPWPVRSVARPVAVLRIGP 362
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             IGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSIA-ATGPVP 479
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          298 PGLAAAPTRLASSALGTHSSDGDMRRAVPGRDTPSLSAVAGPVTLSGSSSSSSSGRNSSSN 357
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        358 SNTSTSSTSNGVTITSNVGVNGASPQERLMAARRAVVTMQWNTHLGRRGRSFAPLPTGGM 417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MIPGSASSGLRESSQSASTCTDGNDSGAGSD-QLGEPGAQQRQRGKHRDRRDVPAQQRPA 251
                                                                          67
                                                                                                                                                                                                   178 PGGGALKGAVDAASDAAPDVAASPAPAGISDQLSTPACPPEREPQAGKPRASGRAPAAP
                                                                   GLTYSGHPLATACAVATINAMEDEGWVANAARIGEQVLGPGLRDLAARHRS-----VGEV
                                                                                                                                                                                                                                                                                                      238 GVGPQDVGGGSGACAPAPDESHMGLTHRDQGHDERISQTAGEAWKAGAVAAPPAAPTPSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VHPAGPGPADRVGVDPGRHRRARGOHOPRDGSDRQASRTVSG-------VPVESNVLS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             V-PTAPGGPSQTGAS-----AVAAQAPSSAMPTAAMAATMGSATIGSAATLPTAAVVSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PPRRP--SDTGSITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQIVASARGTVE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             VQARPVQGQSGQVPQVGQGPVQSQPG---RRQEPAASATKLHVADGLPARPVQPAVSATD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             enhancer regions.";
Virology 179:365-337(1990).
-!- FUNCTION: This IE protein is a multifunctional protein capable of migrating to the nucleus, binding to DNA, trans-activating other viral genes, and autoregulating its own synthesis.
-!- SUBCELLULAR LOCATION: Nucleus of infected cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDLINE=91021039; PubMed=2171211;
V1ceK C., KOZMIK Z., Paces V., Schirm S., Schwyzer M.;
Pgeudorabies virus immediate-early gene overlaps with an oppositely oriented open reading frame: characterization of their promoter and
                          177;
                                                                                                                                                                                                                                                                                                                                                                                                                                             PRSSNGSPTVHISQSMNAASSGTS-----RRSSTLFRWQS-----
  21.1%; Pred. No. 0.57; ive 64; Mismatches 235; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SIATSAASSSTSSASSSSMNDGSNAKKTSDAAVSLPVGQQ----
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Alphaherpesvirinae; Varicellovirus.
NCBI TaxID=33703;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (Rel. 28, Created)
(Rel. 28, Last sequence update)
(Rel. 44, Last annotation update)
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Pseudorabies virus (strain Kaplan) (PRV)
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                          Conservative
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Best Local
Matches 12
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This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a alicense agreement (See http://www.isb-sib.ch/announce/ r send an email to licenseeisb-sib.ch).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ------AAAAGATRPPSAQQQQQPRRGSGEIVVLDDEDEEEDEPG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPAAGSPGRA-----LHOGSEHGHLVLGPRSRAGSGPRPPTPAALAAABAGAPGGPGR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RLDPRPLGARSPVSSNPNSNSNSTTTVAVETVARGPEKDEDGLGLAGDGGAPPORR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              443 APAPEPARPPRRKRRSTNNHLSLMADGPP---PTDGPLLTPLGEPWPGSDPPADGRVRYG
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                                     phosphorylation.
SIMILARITY: Belongs to the herpesviruses ICP4/IE140/IE180 family.
stretch of serine residues may be a major site of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Phosphorylation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; DB 1; Length 1446; 0.56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         242 RD----VPAQQRPAVHPAGP------GPADRVGVDPGRH----
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     54; Mismatches 224;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  EMBL) massor,
PIR; A45344; A45344.

InterPro; IPR005205; Herpes ICP4 C.
InterPro; IPR005205; Herpes ICP4 C.
InterPro; IPR005205; Herpes ICP4 C.
InterPro; IPR005385; Herpes ICP4 C; 1.
Pfam; PP03584; Herpes ICP4 C; 1.
Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03584; Herpes ICP4 C; 1.

Pfam; PP03585; Herpes ICP4 C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Poly-Ser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         148640 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; M34651; AAA47470.1; -.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Best Local Similarity 21.38
Matches 154; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1446 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R-----
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610 DPL----WALPHAVSAVAMSRRYDRTQKTFILQSLRRAYADMAYP-----GRAADPRAG 659 ය ව රු ස

536 RA 537 | 660 EA 661

Search completed: September 16, 2005, 20:52:08 Job time : 184 secs

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OM protein - protein search, using sw model

Run on: September 16, 2005, 20:27:42; Search time 25 Seconds

(without alignments)
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on: September 16, 2005, 20:27:42 ; Search time 25 Seconds (without alignments)
1639.293 Million cell updates/secle: US-10-607-752-116

Title: US-10-607-752-116
Perfect score: 2862
Sequence: 1 IYSTFADRAYPGGLTYSGHP.......IPSRAARAAEIHGSHHHHHH 549
Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 segs, 74649064 residues

Total number of hits satisfying chosen parameters:

513545

imum DB seq length: 0
imum DB seq length: 2000000000
Post-processing: Minimum Match 0*
Maximum Match 100*
Listing first 45 summaries

Database : Issued Patents AA:*

1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS COMB.pep:6: /cgn2_6/ptodata/1/iaa/PCTUS COMB.pep:

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	% Query Match Length	DB	ID	Description
				!		-
٦	7997	100.0	282	•	US-09-450-072-81	Sequence 81, Appl
7	2862	100.0	582	4	US-09-351-348-81	81,
М	2145	74.9	582	m	1	80.
4	2145	74.9	582	4	٦,	80.
2	1906	9.99	582	٣	-09-450-	
9	1906	9.99	582	4	39-3	79.
,	490	17.1	97	m	-60	71,
œ	490	17.1	97	4	09-3	
σ	440	15.4		n	US-09-450-072-74	74
10	440	15.4		4	US-09-351-348-74	74.
11	389	13.6	75	ო	-09-4	70.
12	389	13.6	75	4	US-09-351-348-70	70,
13	373	13.0	70	m		69
14	373	13.0	70	4	US-09-351-348-69	_
15	326	11.4	59	e	US-09-450-072-77	77,
16	326	11.4	59	4	US-09-351-348-77	77,
17	255		49	က	-60	72,
18	255		49	4	US-09-351-348-72	72,
19	237	8.3	46	ო	-60-	73,
20	237		46	4	US-09-351-348-73	73,
21	224		44	ო	US-09-450-072-76	16,
22	224	•	44	4	US-09-351-348-76	16,
23	222	7.8	456	4	US-09-489-039A-13165	1316
24	206	7.2	38	m	-00-	67,
25	206	7.2	38	4	US-09-351-348-67	67,
56	204.5	7.1	819	4	-09-252-991A-1956	195
27	196.5	6.9	909	4	-252-	1823

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22424,	21386,	25050,	16941.	25361,	23373,	20408,	30690,	20675	23140,	23193,	22479	31760,	23569,	65. Ar	65. Ar	100	31954
Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Seguence	Sequence
US-09-252-991A-22424	US-09-252-991A-21386	US-09-252-991A-25050	US-09-252-991A-16941	US-09-252-991A-25361	US-09-252-991A-23373	US-09-252-991A-20408	US-09-252-991A-30690	US-09-252-991A-20675	US-09-252-991A-23140	US-09-252-991A-23193	US-09-252-991A-22479	US-09-252-991A-31760	US-09-252-991A-23569	US-09-450-072-65	US-09-351-348-65	US-09-252-991A-20033	US-09-252-991A-31954
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613	973	802	672	1037	618	957	588	726	1246	412	822	1706	757	32	32	420	703
6.8	6.9	6.7	6.7	6.7	6.7	6.7	9.9	6.5	6.5	6.3	6.3	6.3	6.3	6.3	6.3	6.2	6.2
196	194	192	191.5	191.5	190.5	190.5	189.5	186	185	180.5	180.5	180.5	180	179	179	178.5	177.5
88	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

	150072				for Treatment of Infectious	ls for Their Use		1/09/450,072	. 6.	//351,348			Version 3.0						lab	
RESULT 1 IIS_09_450-072-81	; Sequence 81, Application US/09450072	; Patent No. 6358734	; GENERAL INFORMATION:	; APPLICANT: Delcayre, Alain	; TITLE OF INVENTION: Compounds for Treatment of Infectious	; TITLE OF INVENTION: and Methods for Their Use	; FILE REFERENCE: 11000.1042c1	; CURRENT APPLICATION NUMBER: US/09/450,072	; CURRENT FILING DATE: 1999-11-29	; EARLIER APPLICATION NUMBER: 09/351,348	; EARLIER FILING DATE: 1999-07-12	; NUMBER OF SEQ ID NOS: 81	; SOFTWARE: FastSEQ for Windows Version 3.0	; SEQ ID NO 81	; LENGTH: 582	; TYPE: PRT	; ORGANISM: Artificial Sequence	; FEATURE:	; OTHER INFORMATION: Made in a lab	US-09-450-072-81

and Immune System Disorders

Query Match 100.0%; Score 2862; DB 3; Length 582; Best Local Similarity 100.0%; Pred. No. 4.9e-241; Matches 549; Conservative 0; Mismatches 0; Indels 0; Gaps

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213 240 360 HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA 120 153 DGSISSALVASPPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMNAASSGTSR 180 214 RSSTLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGAGSDQLGEPGAQQRQRGKHRD 273 300 93 94 HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA 154 DGSISSALVASPPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMNAASSGTSR RSSTLFRWQSPCMI PGSASSGLRESSQSASTCTDGNDSGAGSDQLGBPGAQQRQRGKHRD 1 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAAR 241 RRDVPAQQRPAVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSDRQASRTVSGVPVESNV LSAGIRCRIPTTRAVAICLATLASRGVVAPQPAGDVARAAAAGSPWPVRSVARPVAVLRT 61 301 121 181 ò g ઠે g ò g ò ద g ò ò

us-10-607-752-116.rai

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Best Local Similarity 67.4%; Pred. No. 1.6e-178;
Matches 442; Conservative 0; Mismatches 0;
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                                                                                                                                                                       Sequence 80, Application US/09450072
Patent No. 6358734
GENERAL INFORMATION:
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US-09-450-072-80
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US-09-450-072-80
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Patent No. 6436898
GENERAL INFORMATION:
APPLICANT: Delcayra. Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REFREENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOST-61
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 81
LENGTH: 582
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100.0%; Pred. No. 4.9e-241;
tive 0; Mismatches 0;
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US-09-351-348-81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: PRT
ORGANISM: Artificial Sequence
FEATURE:
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APPLICANT: Delcayre, Alain
TITLE OF INVENTION: and Methods for Treatment of Infectious and Immune System Disorders
TITLE OF INVENTION: and Methods for Their Use
FITLE OF INVENTION: and Methods for Their Use
FILE REPERENCE: 11000.1042c1
CURRENT APPLICATION NUMBER: US/09/450,072
CURRENT APPLICATION NUMBER: 09/351,348
EARLIER APPLICATION NUMBER: 09/351,348
EARLIER PILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 80
LENGTH: 582
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154 IGSIARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALVGSIAATGPVPG 513
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GPPPRRPSDTGSDQLGEPGAQQRQKHRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRH
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                                                       TAWIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAARAAEI
                                                                                     514 TAWIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAARABI
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469

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Sequence 79, Application US/09450072

Patent NO. 6358734

GENERAL INFORMATION:
Application US/09450072

GENERAL INFORMATION:
COMPOUNDED FOR Treatment of Infectious and Immune System Disorder
TITLE OF INVENTION: and Methods for Their Use
FILE REPERENCE: 11000.1042c1

CURRENT APPLICATION NUMBER: US/09/450,072

CURRENT FILING DATE: 1999-11-29

EARLIER APPLICATION NUMBER: 09/351,348

EARLIER FILING DATE: 1999-07-12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA 120
467 VEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARAADGSIAATGPVPGTAWIVRQYPKLLR 526
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                                                       494 AKANWEDTWIFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAARAAEIHGSHHHHHH
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 582;
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                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 79
LENGTH: 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; OTHER INFORMATION: Made in a lab
US-09-450-072-79
                                                                                                                                                                                                                                                                                                                                                                                                                           TYPE: PRT ORGANISM: Artificial Sequence
                                                                                                                      RESULT 5
US-09-450-072-79
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TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REFERENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT PILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: PastSEQ for Windows Version 3.0
EQ ID NO 80
LENGTH: 582
                493
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                                          467 VEVIGAQCRRRDVVGAGDAAAVGVLGPQRQHRARADGSIAATGPVPGTAWIVRQYPKLLR
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                                                                               AKANWEDTWTPPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAARAAEIHGSHHHHHH 549
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Pred. No. 1.6e-178;
0; Mismatches 0;
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Patent No. 6436898
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                        ORGANISM: Artificial Sequence
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Best Local Similarity 67.4%;
Matches 442; Conservative
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US-09-351-348-80
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US-09-351-348-71
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US-09-450-072-71
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Barent No. 6436898

GRNERAL INFORMATION:
GRNERAL INFORMATION:
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REPRESENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT FILING DATE: 1999-07-12
NUMBER: OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 79
LENGTH: 582
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                  484 DRALRNIGPYLPAEVPALVGSIAATGPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEK
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DRALRNIGPYLPAEVPALVGSIAATGPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEK
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Pred. No. 1.1e-157;
0; Mismatches 0;
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US-09-351-348-79
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Best Local Similarity 57.1%;
Matches 399; Conservative
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Treatment of Infectious and Immune System Disorders
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TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REFERENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT FILING DATE: 1999-07-12
SOFTWARE: FILING DATE: 1999-07-12
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                       484 DRALRNIGPYLPAEVPALVGSIAATGPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEK 543
RRADORSCROIHPGGGRHVOIVASARGTVEIGSIARLCGKDEAVAALHYVAPVGEKODYI 483
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                                                                                                                                                                                                                                                                                                              Sequence 71, Application US/09450072
; Patent No. 635874
; GENERAL INFORMATION:
GENERAL INFORMATION:
TITLE OF INVENTION: Compounds for Treatment of IT:
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.1042c1
; CURRENT PELICATION NUMBER: US/09/450,072
; CURRENT FILING DATE: 1999-11-29
EARLIER PILING DATE: 1999-07-12
; NUMBER: OF SEQ ID NOS: 81
; SOFTWARE: FastSEQ for Windows Version 3.0
; TENCH. . . .
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Best Local Similarity
Matches 97; Conserv
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GENERAL INFORMATION:

APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders;
TITLE OF INVENTION: Cand Methods for Their Use
FILE REFERENCE: 11000.1042c1
CURRENT APPLICATION NUMBER: US/09/450,072
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Patent No. 6436898
GENERAL INFORMATION:
APPLICANT: Delcayze, Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REFERRACE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT APPLICATION NUMBER: US/09/351,348
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
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13.6%; Score 389; DB 3; I
Best Local Similarity 100.0%; Pred. No. 1.2e-26;
Matches 75; Conservative 0; Mismatches 0;
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; Patent No. 6358734
                                                                                                                                                                                                                                                                                                                                                     GRGANISM: Mycobacterium vaccae US-09-450-072-70
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; ORGANISM: Mycobacterium vaccae
US-09-351-348-70
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Matches 75; Conserv
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US-09-351-348-70
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US-09-450-072-69
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APPLICANT: Delcayre, Alain
TITLE OF INVENTION: and Methods for Their Use
TITLE OF INVENTION: and Methods for Their Use
FILE REFERENCE: 11000.104201
CURRENT APPLICATION NUMBER: US/09/450,072
CURRENT APPLICATION NUMBER: 09/351,348
EARLIER APPLICATION NUMBER: 09/351,348
EARLIER PILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 74
LENGTH: 87
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Patent No. 6436898

GENERAL INFORMATION:

TITLE OF INVENTION: Compounds and Methods for the Treatment

TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines

FILE REFERENCE: 11000.1442

CURRENT PILIONO.1442

CURRENT PILIONO DATE: 1999-07-12

NUMBER OF SEQ ID NOS: 81

SOFTWARE: FastSEQ for Windows Version 3.0

ED NO. 74
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15.4%; Score 440; DB 4; Length 87;
Best Local Similarity 100.0%; Pred. No. 5.2e-31;
Matches 87; Conservative 0; Mismatches 0; Indels
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Query Match 15.4%; Score 440; DB 3; I
Best Local Similarity 100.0%; Pred. No. 5.2e-31;
Matches 87; Conservative 0; Mismatches 0;
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                                                                                                                                   Sequence 74, Application US/09450072
Patent No. 6358734
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ORGANISM: Mycobacterium vaccae
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US-09-450-072-70
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US-09-351-348-74
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Bequence 77, Application US/09450072

Bequence 77, Application US/09450072

Bequence 77, Application US/09450072

Bequence 77, Application US/09450072

GENERAL INFORMATION:
TITLE OF INVENTION: Compounds for Treatment of Infectious and Immune System Disorders
TITLE REPERENCE: 11000.1042c1

CURRENT APPLICATION NUMBER: US/09/450,072

CURRENT FILING DATE: 1999-11-29

BARLIER APPLICATION NUMBER: 09/351,348

BARLIER PILING DATE: 1999-71-12

NUMBER OF SEQ ID NOS: 81

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 77

LENGTH: 59
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APPLICANT: Delcayre, Alain
APPLICANT: Delcayre, Alain
TITLE OF INVENTION: Compounds and Methods for the Treatment
TITLE OF INVENTION: Of Mycobacterial Infections with Multi-Epitope Vaccines
FILE REFERENCE: 11000.1042
CURRENT APPLICATION NUMBER: US/09/351,348
CURRENT PILION DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 69
LENGTH: 70
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                                                                                                                                                                                                                                                                                                                                                                                472 IAATGPVPGTAWIVRQYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIF 531
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Best Local Similarity 100.0%; Pred. No. 2.7e-25;
Matches 70; Conservative 0; Mismatches 0; Indels
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13.0%; Score 373; DB 4; Local Similarity 100.0%; Pred. No. 2.7e-25; ttches 70; Conservative 0; Mismatches 0;
CURRENT FILING DATE: 1999-11-29
EARLIER APPLICATION NUMBER: 09/351,348
EARLIER FILING DATE: 1999-07-12
NUMBER OF SEQ ID NOS: 81
SOFTWARE: FREUSEQ for Windows Version 3.0
SEQ ID NO 69
LENGTH: 70
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RESULT 14
US-09-351-358-69
Sequence 69, Application US/09351348
; Patent No. 6436898
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; TYPE: PRT
; ORGANISM: Mycobacteerium vaccae
US-09-351-348-69
                                                                                                                                                                              ; TYPE: PRT
; ORGANISM: Mycobacteerium vaccae
US-09-450-072-69
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61 SRAARAAEIH 70
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US-09-450-072-77
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OM protein - protein search, using sw model

September 16, 2005, 20:36:34; Search time 168 Seconds (without alignments) 1263.878 Million cell updates/sec Run on:

549

Title: Perfect score:

US-10-607-752-116 2862 1 IYSTFADRAYPGGLTYSGHP......IPSRAARAAEIHGSHHHHHH Sequence:

BLOSUM62 Gapop 10.0 , Gapext 0.5 Scoring table:

2105692 Total number of hits satisfying chosen parameters: 2105692 segs, 386760381 residues Searched:

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Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

A_Geneseq_16Dec04:* Database :

genescq1980s:* genescq1990s:* genescq2000s:* genescq2001s:* genescq2003ss:* genescq2003bs:* genescq2003bs:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	Description	Aab31660 Amino aci	Aab31659 Amino aci		Aab31650 Amino aci	Aab31653 Amino aci	Aab31649 Amino aci	Aab31648 Amino aci	Aab31656 Amino aci	Aab31651 Amino aci	Aab31652 Amino aci	Aab31655 Amino aci	Abo66648 Klebsiell	Aau36108 Klebsiell	Aab31646 Amino aci	Abo70823 Pseudomon	Abg03533 Novel hum	Abo69487 Pseudomon	Abo73678 Pseudomon	Abo72640 Pseudomon	Abo76304 Pseudomon	Abo68195 Pseudomon	Abo76615 Pseudomon	Abo74627 Pseudomon	Abo71662 Pseudomon	Abo81944 Pseudomon
SUMMAKIES	ID	AAB31660	AAB31659	AAB31658	AAB31650	AAB31653	AAB31649	AAB31648	AAB31656	AAB31651	AAB31652	AAB31655	AB066648	AAU36108	AAB31646	ABO70823	ABG03533	AB069487	AB073678	ABO72640	ABO76304	AB068195	AB076615	AB074627	AB071662	ABO81944
	DB	4	4	4	4	4	4	4	4	4	4	4	7	4	4	7	4	7	7	7	7	7	7	7	7	1
	Length DB	582	582	582	97	87	75	70	59	49	46	44	456	445	38	819	900	909	613	973	802	672	1037	618	957	588
d	Query Match	100.0	74.9	9.99	17.1	15.4	13.6	13.0	11.4	8.9	8.3	7.8	7.8	7.7	7.2	7.1	6.9	6.9	6.8	6.8	6.7	6.7	6.7	6.7	6.7	9.9
	Score	2862	2145	1906	490	440	389	373	326	255	237	224	222	220	206	204.5	197.5	196.5	196	194	192	191.5	191.5		190.5	189.5
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188.5	185	184.5	183	180.5	180.5	180.5	180	180	180	180	180	180	180	180	180	180	180	180
26	7 7 8 7 8	53	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45

ALIGNMENTS

RESULT

AAB31660 standard; protein; 582 AA

AAB31660;

(first entry) 30-APR-2001 Amino acid sequence of an 8-mer multi-epitope designated ME/D.

Epitope; antigen; cytokine production; immune disorder; tuberculosis; cancer; mycobacterial infection; TH1 immune response; vaccine.

Synthetic. Mycobacterium vaccae.

WO200104140-A1.

18-JAN-2001

99US-00351348. 99US-00450072. 10-JUL-2000; 2000WO-NZ000121. 12-JUL-1999; 29-NOV-1999;

(GENE-) GENESIS RES & DEV CORP LTD.

Delcayre A;

WPI; 2001-168411/17. N-PSDB; AAF25122 Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders and cancers.

Claim 10; Page 75-76; 80pp; English.

The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The optiopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence represents an 8-mer multi-epitope designated ME/D

Sequence 582 AA;

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RESULT 3
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                                                                     34 IYSTFADRAYPGGLIYSGHPLATACAVATINAMEDEGMVANAARIGEOVLGPGLRDLAAR
                                                                                                       HRSVGEVRGLGVFWAGSDPERAGIRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA
                                                                                                                             94 HRSVGEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQRQHRARA
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                                                   1 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAAR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               514 TAWIVROYPKLLRAKANWEDTWTFPSIEEKHRPRGSVAGPVFRVNLGRAIPSRAARAAEI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Epitope, antigen, cytokine production, immune disorder, tuberculosis, cancer, mycobacterial infection, TH1 immune response, vaccine.
                             Gaps
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  Length 582;
                          Indels
  DB 4;
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Query Match
100.0%; Score 2862; DB 4
Best Local Similarity 100.0%; Pred. No. 8e-215;
Matches 549; Conservative 0; Mismatches 0
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                                                                                                                                                  comprising immunogenic epitopes of Mycobacterium treating mycobacterial infections, immune disorders
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Pred. No. 8.7e-159;
0; Mismatches 0; Indels 21.
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                                                                                                                                                                                                                                                            Claim 10; Page 74-75; 80pp; English.
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67.4%;
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Matches 442; Conservative
                                                           WPI; 2001-168411/17.
                                                                                                                                               polypeptides
e, useful for
                                                                                       N-PSDB; AAF25121
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271 RRARGQHQPRDGSDRQASRTVSGVPVESNVLSAGIRCRTPTTRAVAICLATLASRGVVAP 330
    334 HISIHPRSSNGSPTVHISQSMNAASSGTSRRSSTLPRWQSPCMIPGSASSGLRESSQSAS 393
                                            TCTDGNDSGAGSDQLGEPGAQQRQRGKGKHRDRRDVPAQQRPAVHPAGPGPADRVGVDPGRH 270
                                                                                                                                                                                                                                               -----GSITQVGRPAVLFAPEQRCR 423
                                                                                                                                                                                                                                                                                                                The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing TH1 immune responses, and for producing vaccines. The present sequence represents a M. vaccae epitope of the invention
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                                                                                                                                                                                                       QPAGDVARAAAAGSPWPVRSVARPVAVLRTGPPPRRPSDTGSITQVGRPAVLFAPEQRCR
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Epitope; antigen; cytokine production; immune disorder; tuberculosis; cancer; mycobacterial infection; TH1 immune response; vaccine.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         HEPRGSVAGPVFRVNLGRAIPSRAARAAEIHGSHHHHHHH 582
                                                                                                                                                                                                                                                                                                                                                                                                                                                    HRPRGSVAGPVFRVNLGRAIPSRAARAAEIHGSHHHHHH 549
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                                                                                 394 TCTDGNDSGA----
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                                            211
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            154 DGSDRQASRTVSGVPVESNVLSAGIRCRTPTTRAVAICLATLASRGVVAPQPAGDVARAA 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          214 AAGSPWPVRSVARPVAVIRTGPPPRRPSDTGSDQLGEPGAQQRQRGKHRDRRDVPAQQRP 273
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           274 AVHPAGPGPADRVGVDPGRHRRARGQHQPRDGSISSALVASPPRAASSAPASIGLGPSGQ 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                HTSIHPRSSNGSPTVHISQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSAS 210
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence represents an 8-mer multi-epitope designated ME/A
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  34 IYSTFADRAYPGGLTYSGHPLATACAVATINAMEDEGWVANAARIGEOVLGPGLRDLAAR
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                                                                                                                                                         Epitope; antigen; cytokine production; immune disorder; tuberculosis; cancer; mycobacterial infection; TH1 immune response; vaccine.
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                                                                                                                   Amino acid sequence of an 8-mer multi-epitope designated ME/A.
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Pred. No. 4.1e-140;
0; Mismatches 0;
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standard; protein; 582 AA.
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99US-00450072
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Best Local Similarity 57.1%;
Matches 399; Conservative
                                                                             (first entry)
                                                                                                                                                                                                                      Synthetic.
Mycobacterium vaccae.
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N-PSDB; AAF25120.
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29-NOV-1999;
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  AAB31658
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Query Match Matches

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The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infection. Giseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence represents a M. vaccae epitope of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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                                                                                                                                                                                               Amino acid sequence of a M. vaccae immunogenic epitope from DNA9A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              4; Length 75;
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Pred. No. 1e-22;
); Mismatches 0; Indels
SPWPVRSVARPVAVLRTGPPPRRPSDT 87
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100.0%; Pre
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99US-00450072
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                                                                                         AAB31649 standard; peptide;
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nes 75; Conserv
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29-NOV-1999;
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                                                                                                            124 ISSALVASPPRAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMNAASSGTSRRS 183
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence represents a M. vaccae epitope of the invention
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                                                                                                                                 1 ISSALVASPPRAAASSAPASIGLGPSGQHTSIHPRSSNGSPTVHISQSMVAASSGTSRRSS
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                                                                                                                                                                                                                                                                                                                                                                                                                        Amino acid sequence of a M. vaccae immunogenic epitope from DNA37.
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                                        Length 97;
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                                                                          0; Indels
                                                                                                                                                                                     184 ILFRWOSPCMIPGSASSGLRBSSOSASTCTDGNDSGA 220
                                                                                                                                                                                                        61 TLFRWQSPCMIPGSASSGLRESSQSASTCTDGNDSGA 97
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100.0%; Pred. No. 1.3e-26;
live 0; Mismatches 0;
                                                         1.8e-30;
                                        DB 4;
                          17.1%; Scor.
100.0%; Pred. No. ...
0; Mismatches
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AAB31653 standard; peptide;
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Best Local Similarity 100.
Matches 87; Conservative
                                                       Local Similarity 100.
1es 97; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium vaccae
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N-PSDB; AAF25084.
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     Sequence 97 AA;
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472 IAATGPVPGTAWIVRQYPKLLRAKANWEDTWTPPSIEEKHRPRGSVAGPVFRVNLGRAIP 531
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                                                                                                                                                                                                                                                                                                                                                            comprising immunogenic epitopes of Mycobacterium treating mycobacterial infections, immune disorders
                Epitope, antigen, cytokine production, immune disorder, tuberculosis,
cancer, mycobacterial infection, TH1 immune response, vaccine.
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cancer; mycobacterial infection; TH1 immune response; vaccine.
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                                                                                                                                                                                                                                            (GENE-) GENESIS RES & DEV CORP LTD.
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99US-00450072
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N-PSDB; AAF25079.
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29-NOV-1999;
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The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing TH1 immune responses, and for producing vaccines. The present sequence represents a M. vaccae epitope of the invention
                                                                                                                                                 Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
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100.0%; Pred. No. 6.2e-18;
tive 0; Mismatches 0;
                                             (GENE-) GENESIS RES & DEV CORP LTD.
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99US-00351348.
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nes 59; Conservative
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N-PSDB; AAF25087.
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                                                                                                                                                                                                                                                                                                                                                                              Sequence 59 AA;
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12-JUL-1999;
29-NOV-1999;
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                                                                           Delcayre A;
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AAB31655 standard; peptide;

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The specification describes an immunogenic epitope of a Mycobacterium vacae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing TH1 immune responses, and for producing vaccines. The present sequence represents a M. vaccae epitope of the invention
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                                                                                                                                                                                                                                                                                373 ITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQIVASARGTVEI
                                                                                                                                                                                                         Length 49;
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                                                                                                                                                                                           8.9%; Score 255; DB 4; L
100.0%; Pred. No. 1.7e-12;
... Mismatches 0;
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00.0%; Pred. No. 4.1e-11;
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nes 49; Conserv
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Matches
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Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders

Claim 1; Page 72; 80pp; English.

and cancers.

(GENE-) GENESIS RES & DEV CORP LTD.

WPI; 2001-168411/17.

Delcayre A;

N-PSDB; AAF25086

99US-00351348. 99US-00450072.

12-JUL-1999; 29-NOV-1999;

10-JUL-2000; 2000WO-NZ000121

Epitope; antigen; cytokine production; immune disorder; tuberculosis; cancer; mycobacterial infection; TH1 immune response; vaccine.

Mycobacterium vaccae

WO200104140-A1.

18-JAN-2001

Amino acid sequence of a M. vaccae immunogenic epitope from DNA44.

(first entry)

30-APR-2001

AAB31655;

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Pred. No. 4e-10;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABO66648 standard; protein; 456 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          29-JUL-2004 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     44; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 44 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
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Local Similarity 100.0

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424 IARLCGKDEAVAALHYVAPVGEKQDYIDRALRNIGPYLPAEVPALV 469

Carr GJ;

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The invention relates to antisense inhibitors of genes essential to prokaryotic cellular proliferation, their use in identifying the genes, their use in the discovery of movel antibiotics, the essential genes themselves and the encoded proteins. The prokaryotes used are Escherichia chemselves and the encoded proteins. The prokaryotes used are Escherichia coli, Staphylococcus aureus, Salmonella typhi, Klebsiella pneumoniae, colerella for the identification of potential new targets for antibiotic colerella used in proliferation, to express these proteins, and to obtain autibodies capable of binding to the expressed proteins. The proteins can the used to screen compounds in rational drug discovery programmes. The buses nucleic acids sequence is also useful to screen for homologous cultisense nucleic acids sequence is also useful to screen for homologous coloranisms. The present sequence represents an essential prokaryotic of organisms. The present sequence represents an essential prokaryotic callular proliferation protein. Note: The sequence data for this patent cler form part of the printed specification, but was obtained in celectronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          5 FADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHRSV 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Epitope, antigen, cytokine production, immune disorder, tuberculosis, cancer, mycobacterial infection, TH1 immune response, vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Amino acid sequence of a M. vaccae immunogenic epitope from DNA27.
                                                                                            Trawick JD,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        7.7%; Score 220; DB 4; Length 445; 46.2%; Pred. No. 1.7e-08; ive 17; Mismatches 30; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           65 GEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVL 110
                                                                                                                                                                                                                                                            antibiotics, comprise sequences of antisense nucleic acids.
                                                                                                                                                                                                                                  polynucleotides for the identification and development
                                                                                            Wall D,
                                                                                                                                                                                                                                                                                                      Example 3; SEQ ID NO 11701; 511pp; English.
                                                                                            Zyskind JW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAB31646 standard; peptide; 38 AA
16-FEB-2001; 2001US-0269308P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-00351348.
99US-00450072.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-APR-2001 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   49; Conservative
                                                                                            Ä
                                           (ELIT-) ELITRA PHARM INC.
                                                                                            Ohlsen
Xu HH;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium vaccae.
                                                                                                                                                             WPI; 2001-611495/70.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Local Similarity
                                                                                                                                                                                      N-PSDB; AAS53967
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 445 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WO200104140-A1.
                                                                                         Haselbeck R,
Yamamoto RT,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            12-JUL-1999;
29-NOV-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JAN-2001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          encoding a Klebsiella
                                                                                                                                                                                                                                                                                                                                                                                                                     New nucleic acid encoding a Klebsiella pneumoniae polypeptide, useful for
preparing a vaccine composition against Klebsiella pneumoniae.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   315 PDDHFFAGGLTYSGHPLAMAAIVATIDAMKEENVVENAASIGNEVLRPGLEALAEKHAII 374
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           5 FADRAYPGGLTYSGHPLATACAVATINAMEDEGMVANAARIGEQVLGPGLRDLAARHRSV 64
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention describes a new isolated nucleic acid encoding a Klebsiel pneumoniae polypeptide. Also described are: a recombinant expression vector comprising the nucleic acid, operably linked to a transcription regulatory element; and a cell comprising the recombinant expression vector. The nucleic acid is useful for preparing a vaccine composition against Klebsiella pneumoniae. This is the amino acid sequence of a Klebsiella pneumoniae polypeptide of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Antisense; prokaryotic cellular proliferation protein; antibiotic; antibacterial; drug design.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    375 GEVRGRGLFQA-----LELVSSREQKTPLTAADMAAIKGAL 410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GEVRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVL 110
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 456;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Klebsiella pneumoniae cellular proliferation protein #96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             30;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match 7.8%; Score 222; DB 7; Best Local Similarity 46.2%; Pred. No. 1.2e-08; Matches 49; Conservative 17; Mismatches 30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; SEQ ID NO 13165; 932pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAU36108 standard; protein; 445 AA
                                                                                                                                                                                                                                                     (GENO-) GENOME THERAPEUTICS CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 21-MAR-2000; 2000US-0191078P.
23-MAY-2000; 2000US-0206848P.
25-MAY-2000; 2000US-024257P.
27-000; 2000US-0242578P.
27-NOV-2000; 2000US-0253625P.
22-DEC-2000; 2000US-0253625P.
                                                                                                                                                         27-JAN-2000; 2000US-00489039
                                                                                                                                                                                                       99US-0117747P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                      Breton GL, Osborne M;
                 Klebsiella pneumoniae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Klebsiella pneumoniae.
                                                                                                                                                                                                                                                                                                                                                 2003-895346/82.
                                                                                                                                                                                                                                                                                                                                                                          N-PSDB; ABD00219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 456 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200170955-A2.
                                                                 US6610836-B1.
                                                                                                                                                                                                       29-JAN-1999;
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                                                                                                             26-AUG-2003
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RESULT 13

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Gaps

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The specification describes an immunogenic epitope of a Mycobacterium vaccae antigen. The epitope is a stimulator of cytokine production. The epitopes are useful for the treatment of immune disorders, infectious diseases, especially tuberculosis, and cancer. They are also useful for treatment of other mycobacterial infections such as those caused by Mycobacterium avium. The epitopes are especially useful for inducing THI immune responses, and for producing vaccines. The present sequence represents a M. vaccae epitope of the invention
                                                                                                                                     Novel polypeptides comprising immunogenic epitopes of Mycobacterium vaccae, useful for treating mycobacterial infections, immune disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 38;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DB 4; L
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             7.2%; Score 206;
& DEV CORP LTD
                                                                                                                                                                                                                    Claim 1; Page 70; 80pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity 100.
1es 38; Conservative
                                                                            WPI; 2001-168411/17.
N-PSDB; AAF25077.
  (GENE-) GENESIS RES
                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 38 AA;
                                                                                                                                                                               and cancers.
                                       Delcayre A;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
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Matches
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; Indels 373 ITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQ 410 1 ITQVGRPAVLFAPEQRCRRRADQRSCRQIHPGGGRHVQ 38 100.0%; Prea.

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Gaps

Bacterial infection; Pseudomonas aeruginosa infection; antibacterial Pseudomonas aeruginosa polypeptide #2998. ABO70823 standard; protein; 819 (first entry) 29-JUL-2004 ABO70823 ABO70823 ID ABO XX AC AC AC DT 29-XX XX KW Bac

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98US-0074788P. 99US-00252991 Pseudomonas aeruginosa US6551795-B1 18-FEB-1999; 18-FEB-1998; 27-JUL-1998; 22-APR-2003

(GENO-) GENOME THERAPEUTICS CORP.

Deloughery C, Nolling J, WPI; 2003-615309/58. Rubenfield MJ,

Bush

N-PSDB; ABD04394.

Novel isolated nucleic acid encoding Pseudomonas aeruginosa polypeptide, useful as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from bacterial infection.

SEQ ID NO 19569; 455pp; English

The invention relates to Pseudomonas aeruginosa polypeptides and the polymucleotides encoding them. The sequences are useful in diagnosis and therapy of pathological conditions, as molecular targets for diagnostics, prophylaxis and treatment of pathological conditions resulting from a

bacterial infection, for evaluating a compound, such as a polypeptide, for the ability to bind a P. aeruginosa mucleic acid, as components of effective antibacterial targets, as targets for antibacterial drugs, including anti-P. aeruginosa drugs, as templates for recombinant production of P. aeruginosa-derived peptides or polypeptides, as target components for diagnosis and/or treatment of P. aeruginosa-caused infection, and in detection of P. aeruginosa sequences or other sequences of Pseudomonas species using biochip technology. Sequences ABO67826-6 Repsesont P. aeruginosa polypeptides of the invention. Note: The sequence data for this patent did not form part of the printed specification but was obtained in electronic format from USPTO at 34; 450 322 369 564 348 SQSMNAASSGTSRRSSTLFRWQSPCMIPGSASSGLRESSQSASTC--TDGNDSGAGSDQL 225 404 284 421 565 RGSPPAGDRHA-----DARRGQPSGADDRHQQRHHRDPHPGGN-----PARGKGTPAG 612 456 670 512 671 PGATLPAEHPGVLPGGRRHADQPQGRAA----RYPELRGAGAHPRWRDHRHRAGVPERHQ 726 67 VRGLGVFWAGSDPERAGLRVEVLGAQCRRRDVVGAGDAAAVGVLGPQR-QHRA-----LRG-----PDAPALRLHL-----RAPAAAGGRRQHQRVRHRADRLPEHL ---RAD--GSISSALVASPPRAASSAPASIGLGPS-----GQHTSIHPRSSNGSPTVHI ----GHRRGAVPRRHGILGDRHGPGVAGGAAVQGQRGAVPDARLFRRTPGRAVVPGDHLC GEPGAQQRQRGKHRDRRDVPAQQRPAVHPAGPG-PADRVGVDPGRHRRARGQHQPRDGSD GRPGTGPRPGAR-----PARRAYQLLPDGEALPA-----PGR-RNLLGAHQRVAGAR --PTTRAVAICLATL 451 RGGSRPVLRHPGGGYRQSQACRAGARAPRRTDQAGHRRRADRHLGVGPGAQPPALGFPHV 323 A-----SRGVVAPQPA--GDVARAAAAGSPWPVRSVARPVAVLRTGPPPRRPSD 511 RPVRHPQRSRGDRRGAVEGEPACRGSRPRARAGAR-----RQRVAEIRLRVPYRPPQP TGSITQVGRPAVLFAPEQRCRR-----RADQRSCRQIHPGGGRHVQIVASARGTVEI DPVFHRRCRVDHRRRRPRDLH - - EPGGRGDDRLDLAGRHRRAPRTGLQRARQRHRRGPGK 457 IGPYLPAEVPALV--GSIAATGPVPGTAWIVRQYPKLLRAKAN--WEDTWTFPSIEEKHR 9 AYPG--GLTYSGHPLATACAVATINAMEDEGMVANAARIGEOVLGPGLRDLAARHRSVGE Gaps Indels 177; Length 819; 422 GSI-ARLCGKD---EAVAALHYVAPVGEKQDYIDRALRN---7.1%; Score 204.5; DB 7; 25.5%; Pred. No. 6.1e-07; ive 53; Mismatches 241; 542 PRGSVAGPVFRVNLGR--AIPSRAARAAEIHG RQASRTV----SGVPVESNVLSAGIRC--RT seqdata.uspto.gov/sequence.html Best Local Similarity 25.59 Matches 161; Conservative Sequence 819 AA; 257 370 119 168 226 405 285 613 513 Query Match Best Local S 349 88999999998888g g 셤 d g ò g g 셤 셤 g ò ò ò δ δ ò ò Š Š ð

completed: September 16, 2005, 20:55:01 ne : 171 secs time Search (

GPGDAA----RAELSKLPRCPHRAVQPHQVRG 754